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Number 95

June 1992

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COMPUTER GAMING WORLD



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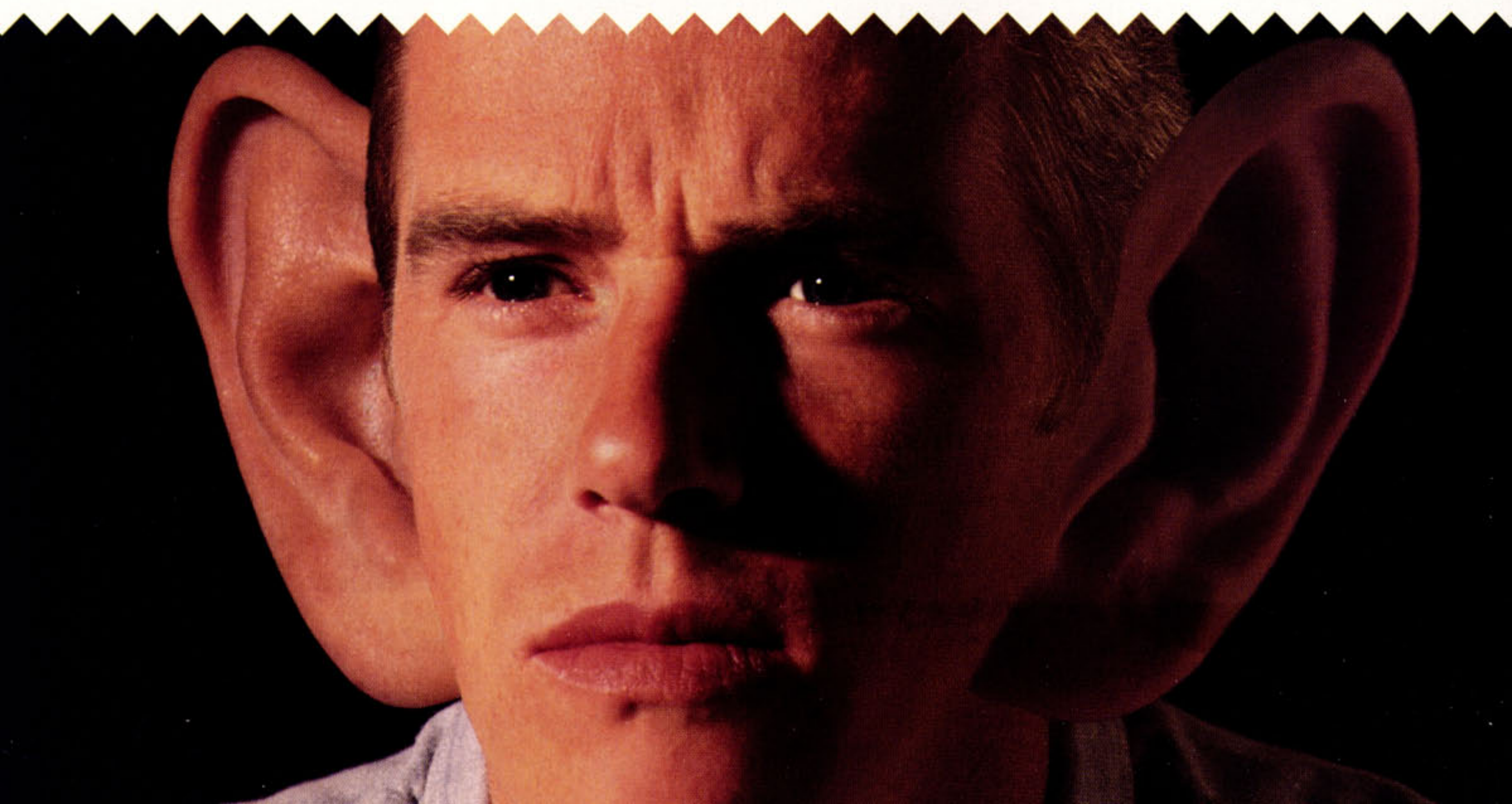
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June 1992 Number 95

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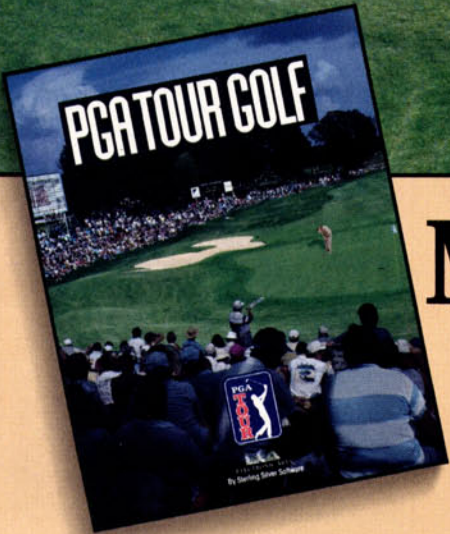
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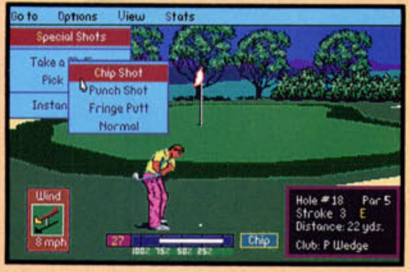
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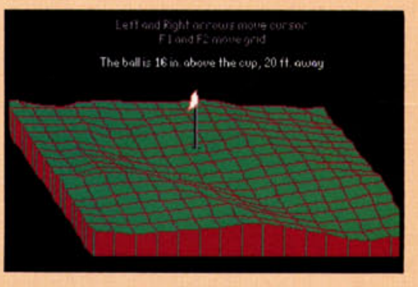


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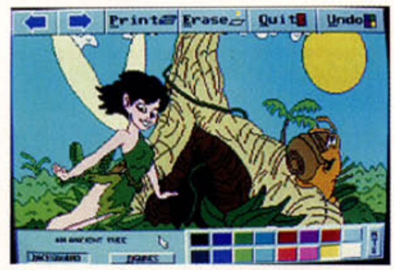
Solid State Pinball Tristan



Computer Third Reich



Just Grandma and Me



FernGully, The Last Rain Forest



Virtual Reality Studio



Black Crypt

Amtex Software Corporation
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Belleville, Ontario K8P 3M7 CANADA
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SOLID STATE PINBALL TRISTAN: Touted for having "realistic ball action and tremendous scoring possibilities," it's hard say more about a product like that (grin). This impressive bit of software is a great pinball game simulator, with enough bells and whistles to give true suspended disbelief to Mac users. The informative manual gives a history of pinball, while the copy protection is a list of most of the important pinball machines ever released and their manufacturers. Macintosh LC/II ($69.95). Circle Reader Service #1.

The Avalon Hill Game Company
Baltimore, MD

COMPUTER THIRD REICH: This boardgame translation into silicon was previewed in *CGW* issue #86, page 22. Fairly faithful to the boardgame, the "saved game turn by e-mail" feature is probably its strongest point. Amiga, Atari ST ($39.95). Circle Reader Service #2.

Broderbund
Novato, CA

JUST GRANDMA AND ME: This bit of "story time" programming for children ages 3-8 is delightful in its simple "click and something happens" interface. On a trip to the beach, Grandma (a gopher) and her grandchild (the young user, also a gopher) set out through adventures and misadventures, supplemented by easy-to-read sentences (which are also read aloud for young learners). Just about every image animates when clicked upon, giving young minds something to keep them fascinated for hours upon hours. Macintosh LC/II *with* CD-ROM ($54.95). Circle Reader Service #3.

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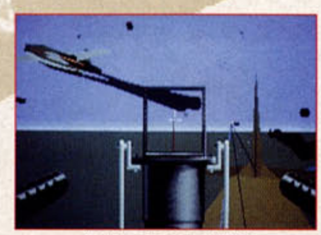
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FOREST: A computerized coloring book, users will enjoy the line-art from the upcoming Don Bluth/Twentieth Century Fox animated motion picture as they "color" in the background and characters using a 256-color VGA palette (of which 16 can be mixed at a time). Five different backgrounds and twenty different characters are provided for "mix and match" scene creation. Supporting a wide range of printers, this ecology-touting product is printed on recycled paper and ready to paint kids' minds a politically correct "green." IBM ($29.95). Circle Reader Service #4.

Domark
Distributed by Accolade
San Jose, CA

VIRTUAL REALITY STUDIO: Unless one surrenders to the concept that anything with 3-D polygon-filled graphics equals "virtual reality," this product isn't it. However, it is a fascinating tool kit for creating and animating 3-D objects in 320 x 200 VGA resolution with a 256-color palette. Users can create their own "walk throughs," "fly bys" and even their own games using this tool kit. Including its own programming language, it *is* powerful enough to allow one to design "virtually" anything. IBM ($89.95). Circle Reader Service #5.

Electronic Arts
Menlo Park, CA

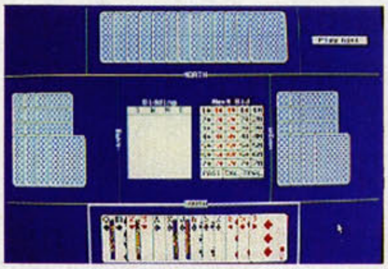
BLACK CRYPT: As previewed in *CGW* issue #91, page 30, this *Dungeon Master*-style game includes full maps and a cluebook. Amiga ($49.95). Circle Reader Service #6.

Interplay Productions
Santa Ana, CA

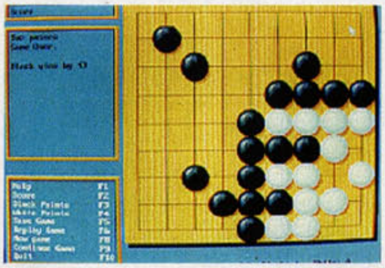
OMAR SHARIF ON BRIDGE: Even if one has never bid a hand of bridge in one's life, bidding becomes logical and nearly intuitive in this game for amateurs and advanced players alike. The digitized voice option (Sound Blaster only) offers a "Gee Whiz" aspect, but the beauty of the game is its elegant "point and click" interface combined with a capacity for testing bridge problems with pre-dealt hands. IBM ($49.95). Circle Reader Service #7.

Infogrames
France

GO SIMULATOR: The classic, ancient game of strategy and intuition, this incarnation of *Go* comes in English, French and German (with a cross-language glossary, no less) in this European import. Using player-defined difficulty levels and board sizes (from 9 x 9 to 19 x 19), this package emphasizes the basics and will help players learn and advance their skill levels. IBM. Circle Reader Service #8.



Omar Sharif on Bridge



Go Simulator



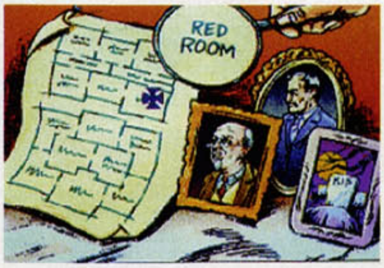
The Secret Island of Dr. Quandary



Planet's Edge



The Case of the Cautious Condor



Murder Makes ... Deadfellows

MECC
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THE SECRET ISLAND OF DR. QUANDARY: The strange and malevolent doctor manages to steal the energy force of the player's character, leaving said character with the option of running the gauntlet on his secret island or continuing life in the body of an aging carnival toy. Through a combination of quick thinking and quick reflexes, gamers ages eight and up will have plenty of challenges in store as they attempt to unravel the puzzles in this game package. The five island layouts and three difficulty levels will keep adults, as well as younger players, challenged. Indeed, special kudos are due the doc's docs. Written with charming brevity and wit in a question-and-answer style, we *are* amused! IBM ($59.95). Circle Reader Service #9.

MicroLeague Sports
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MICROLEAGUE FANTASY MANAGER (SPECIAL USA TODAY EDITION): Teaming up two top talents, Microleague Sports and the telecommunications network sponsored by America's newspaper, *USA Today*, this is fantasy league/rotisserie design kit par excellence. From auction/draft day through the end of the season, players will be utilizing plenty of statistics (up to 14 different pitching categories and 17 batting categories) as they constantly manage and update their flexible-size rosters. Trades, activations and free agents are handled with a few simple mouse clicks. With up-to-date statistics available for download from the *USA Today* Sports Center (among other methods), customizable rules and printable reports that are clear and concise, any computer baseball fanatic will want to look closely


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at adding this new player to the lineup. IBM ($49.95; not pictured). Circle Reader Service #10.

New World Computing
Woodland Hills, CA

PLANET'S EDGE: The folks at New World Computing can't seem to do anything on a small scale. Once again they've combined their role-playing design talents and their penchant for the grandiose to create this magnum space opus. The storyline may sound a bit familiar (collect the parts of the humanity-saving machine), but the actual system and universe is extremely well-done. Players will sail the cosmic seas exploring hundreds of solar systems, collecting and trading commodities with alien cultures, and engaging in *Star Trek*-esque mini-adventures on alien worlds. It's a fun way to see the uncharted backwaters of the unfashionable end of the western spiral arm of the Milky Way. IBM ($59.95). Circle Reader Service #11.

Tiger Media
5801 E. Slauson Avenue #200
Los Angeles, CA 90040
(213) 721-8282

THE CASE OF THE CAUTIOUS CONDOR: These two games present computer games in the genre of 1930s-era "Airwave Adventures" in terms of sound and storylines, with interactive, '50s-style comic-bookish art. Both games are on CD-ROM and support the Sound Blaster, SB Pro and Thunderboard. Armed with a cast of genre/pulp characters from the cream of international society, this first game is set aboard a luxury airliner (a la Howard Hughes' "Spruce Goose") on which a murder has been committed and the player has 30 minutes to search out the premises and find out "whodunit." IBM CD-ROM ($49.95). Circle Reader Service #12.

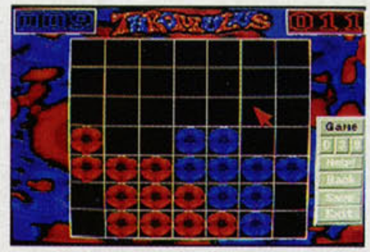
MURDER MAKES STRANGE DEADFELLOWS: The powerful patriarch of the Steere family has died in a mysterious fall and, as the family assembles in the (now haunted) mansion for the reading of the will, the player must guide earnest young Nick through the adventure ahead. In a collision of this world with the next, humor and horror are blended as the foul smell of foul play begins to permeate the premises. IBM CD-ROM ($49.95). Circle Reader Service #13.

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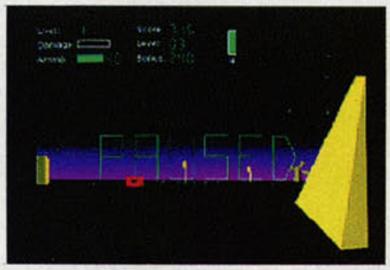
4 GET IT: Another in the tradition of strategy/puzzle solving games (alongside



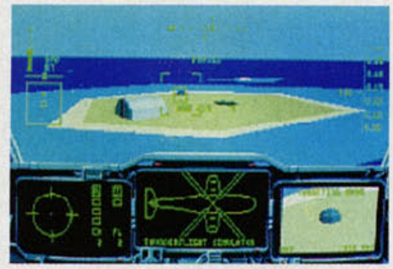
4 Get It



Thromulous



Spectre



Thunderhawk

Darwin's Dilemma and *Shanghai*), this one has players dropping tiles from precarious perches down through mazes where they will touch like tiles and disappear. When a screen is cleared, players advance to another (and more difficult) level. Presented throughout using tongue-in-cheek humor, this enjoyable distraction will keep players challenged and smiling for quite a while. IBM ($44.95). Circle Reader Service #14.

FUTURE WARS: THE RED STATE: Hypothesizing a renegade long-range bomber strike that launched thousands of nuclear missiles at what *used* to be the United States, this is an expansion disk for *Brigade Commander*. Now, the blue player must retake the America of his forefathers from bases in Canada in the new campaign game feature included in the package. Amiga ($29.95; not pictured). Circle Reader Service #15.

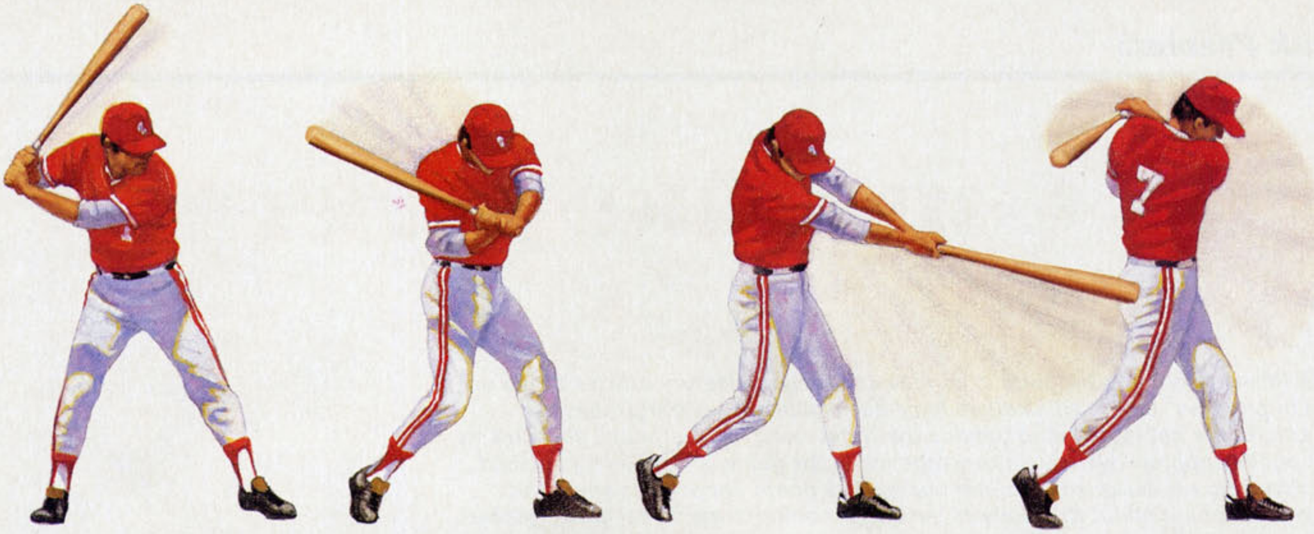
THROMULUS: In this "battle for the bloodstream" game, evil red mutant blood cells are being fought by a blue-blooded antidote in a strategy boardgame environment. With elements of *Othello*, *Blockade!* and *Go*, this 0-2 human player mental match-up has players inflicting white blood cells or viruses and using moveable platelets in addition to their normal "capture and convert" boardgame moves of jumping and cloning. With three different board sizes and a "biotech design" feature, this little experiment might just be the cure for several hours of boredom. Amiga ($44.95). Circle Reader Service #16.

Velocity
Palatine, IL
(708) 991-0594

SPECTRE: Packaged in a box the shape of a familiar computer polygon, this game is a cross between *Stellar 7* and "capture the flag." Players select (or "build") their own vehicles to take into the arena or off-road as they zoom around and zap each other on the way to the objective(s). A multi-player network mode is included in the package (however, it requires each player to own his own personalized copy of the game). Interestingly, players can send away for a "*Spectre* Network Party Pack" (complete with invitations) to get around every player needing to buy a copy of the game. Hmmm... bet the boys in marketing dreamed up *that* one. Macintosh ($59.95). Circle Reader Service #17.

Virgin Games
Irvine, CA

THUNDERHAWK: A poor man's *Gunship 2000*, imagine a cross between Cosmi's early helicopter game and EA's *LHX Attack Chopper*. Utilizing some *Wing Commander*esque briefing segues between missions, like that game it is also easy to assimilate and begin playing. Includes a campaign game to go along with the polygon-filled prescription for action, action, action. IBM ($49.99). Circle Reader Service #18. **cgw**



▲ ***HardBall III takes a full cut at major league realism.*** A power line-up that includes printable stats, standings and box scores; the ability to import data from *HardBall II*,™ *Earl Weaver II*™ and *Tony LaRussa*™; plus a Team & Player Editor that allows you to alter everything from team logos to a player's ability.



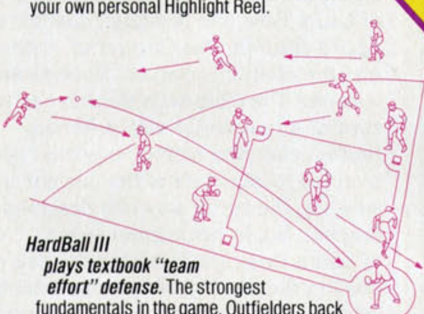
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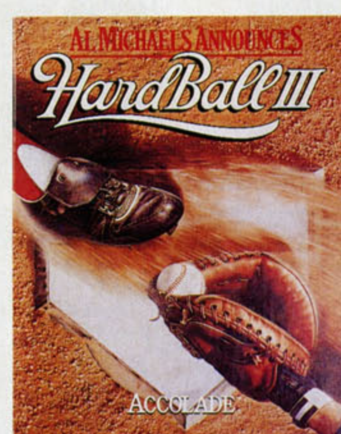
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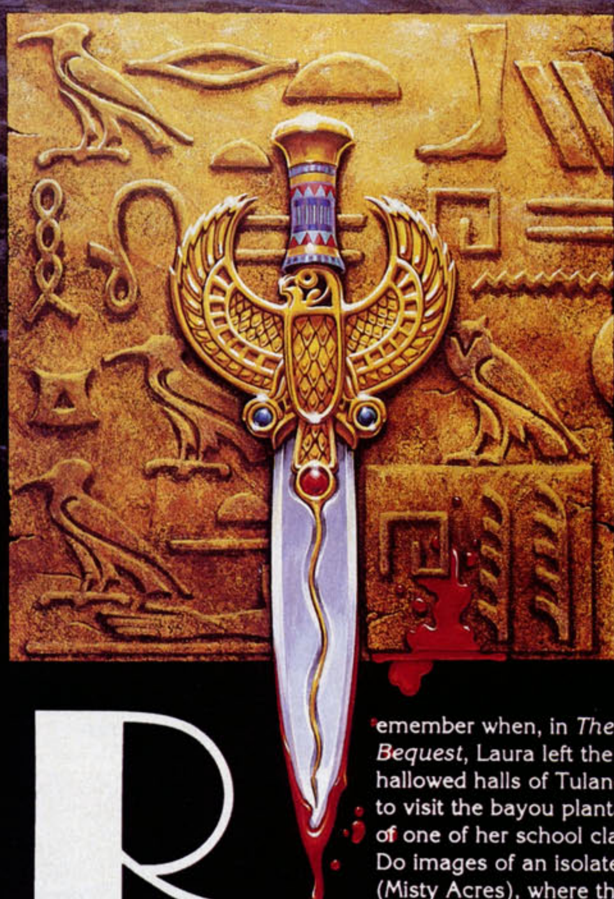


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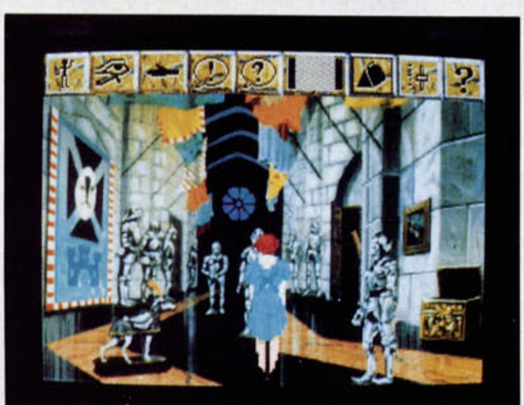
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"If I Can Make It Here..."

Sneak Previews are not designed to be reviews. They are feature articles based on "works in progress" that CGW's editors have deemed worthy of early coverage. These articles are not intended to provide the "final word" on a product, since we expect to publish appropriate review coverage when the game is completely finished. Sneak Previews are designed to inform our readers about upcoming games and generate excitement about the "state of the art" of computer game design in general.



Remember when, in *The Colonel's Bequest*, Laura left the safe, sane, hallowed halls of Tulane University to visit the bayou plantation home of one of her school classmates? Do images of an isolated plantation (Misty Acres), where the cast of related characters are hated by each other and said cast is dropping faster than trollops in a Jack the Ripper novel ring a bell? If so, it should be welcome news that Laura is ready to make her way in the "real" world now. She is headed for the "Big Apple," and one almost expects her to toss her Roaring '20s era hat triumphantly in the air *a la That Girl* of the '60s.



In fact, the parallel is somewhat striking. Roberta Williams originally chose Laura's name because it reminded her of Clara Bow, the on-screen girl ingenue (or "It Girl," so known after she played the lead in 1927's *It*) who had that certain something (*It*?) that made viewers *know* that she was going to succeed. Indeed, Marlo Thomas' Ann Marie on *That Girl* offered something of the same fresh-faced innocence combined with fierce determination that made millions of girls believe that "That Girl" could make it, that "That Girl" was not just *any* girl.

Yet, the parallel may even be more striking in the interaction between the creator of Laura Bow, the designer/director of *Laura Bow in The Dagger of Amon Ra* and the character herself. Roberta envisioned *The Colonel's Bequest* as the start of a new series with a female protagonist. She neither expected nor planned to direct all of the designs in the series in the same way she designed the original. So, in her current role as *creator* of Laura Bow, she is taking the risk of placing the destiny of her character in other hands. To be sure, she placed her character in the experienced hands of Bruce Balfour (designer of *Neuromancer*, *CGW*'s Adventure Game of the Year for 1989), but they are *different* hands nonetheless.

Just as John Bow, Laura's father, sends his daughter off to New York to prove her worth as a novice reporter for the *New York Daily Register News Tribune*, Roberta has allowed Bruce considerable free reign in sending Laura off to new horizons and, in so doing, to attempt to earn his place among **Sierra**'s top designers. In fact, the idea of sending Laura off to New York in *The Dagger of Amon Ra* was, initially, something of a surprise to Roberta. She had envisioned the next Laura Bow as taking place in New Orleans. Indeed, she had invested quite a bit of time in researching and mapping areas of New Orleans for just such a contingency, but Bruce and Josh Mandel (who currently directs develop-

Sierra's Laura Bow II — The Dagger of Amon Ra

by Johnny L. Wilson





ment of the in-house game designs) convinced her that all roads in both the film and literary genres associated with irrepressible young female protagonists led to New York.

The Coroner's Inquest

At one point, the newest Laura Bow game was almost entitled *The Coroner's Inquest*. That would have been appropriate in several different ways. First, the symmetry in the titles would have united the games more closely in the minds of potential customers. In the sense that Laura is a continuing character and is true to her roots, that would have been positive. Roberta gave Bruce and Josh a list of "Would Do"s and "Wouldn't Do"s with regard to Laura's character and she believes the design team has been true to her vision. In the sense that the game still has the "punfully" clever tag lines after Laura's death scenes, tying the two games together is still appropriate. If anything, Balfour has sharpened the slash of the word play.

In the sense of the look, feel and *design*, however, the games are dramatically (pun intended) different. Where *The Colonel's Bequest* was largely inspired by the living theater style used in the play *Tamara* (the long-running "stage" production in which the audience wanders from room to room in the old manse where the murder occurred and observes the action taking place *in situ*) and featured plenty of non-interactive eavesdropping and snooping, *The Dagger of Amon Ra* is much more interactive. Where the older game's background scenery looked almost like a group of stage sets, the newer game's settings are beautiful interior settings that convey the ideas of *rooms* more than sets. Where the older game was divided into specific announced acts (as in a play) in which the player had to "perform" several "Must Do"s prior to finishing a given act, the newer game is divided into six acts that are neither announced nor entirely visible. Where *The Colonel's Bequest* had a very linear storyline and sometimes felt rather empty, *The Dagger of Amon Ra* has more peripheral story elements and seems to hold to a livelier pace.

Roberta Williams explained to *CGW* that, although *The Colonel's Bequest*'s sales were not equivalent to the megahits in the **Sierra** line, the satisfaction level from those who did purchase the game and did send in their registration cards was the highest of *any* **Sierra** game. She noted that the original Laura Bow adventure was particularly successful among women. Her theory was that women were more inclined to snoop around and piece things together a little at a time, while men wanted to be in control. Ironically, Bruce Balfour's design reflects the more traditional control element of adventure game design, so it will remain to be seen how well received *The Dagger of Amon Ra* will be among the devotees of the original.

The second reason that *The Coroner's Inquest* would have been an appropriate name for the game involves the delightful denouement of the story. Laura is invited to the inquest in order to give her evidence as to who the murderer or murderers may be. The coroner asks her questions and the player provides the answers by pointing at the menu and clicking on the right answer. The program checks against the evidence which Laura collected in the course of the game *and* if the player is successful, moves to the finale. If the player is unsuccessful, the game comes to a gruesome end.

What's the Scoop?

In *The Dagger of Amon Ra*, Laura learns of both the pearls of New York society and the perils of New York's street life. The game begins with a free-running animated introduction that sets up a side plot, the main plot and the initial suspect. Of course, nothing in a '20s era (or any era) murder mystery is as simple as it seems. So, by the time Laura arrives in NY, experiences a classic NY welcome, is given her first reporting assignment and meets one of her rivals, the gamer is ready for what proves to be a serpentine plot.

Rich in historical allusion to the time period being portrayed, the central plot hinges on an Egyptian artifact (it doesn't take much of a guess to figure out which one) which has been stolen from a new museum exhibition. The discoverer of the artifact is Pippin Carter (Howard Carter's smarter brother?). At another time, Laura may find the autograph of up and coming minor league baseball star, Bob Ruth (the Bobbino?). As Balfour told *CGW*, "There seem to be a lot of famous 'brothers' in this game."

Not only does the game hint at personalities from the era, beyond the discoverer of Tut's tomb and the future home-run king, but it also offers the expected ambience associated with the time period. One finds flappers at the

local speakeasy, clever (but intentionally limited) dialects, beautiful costumes and art deco interiors. There is also a fascination with foreign and exotic persons and items, as would be appropriate to the post-war era of expatriate citizens (Fitzgerald, Hemingway, Miller, Stein *et al.*).

Fresh Interface and a Willing Espirit

CGW's early look at *The Dagger of Amon Ra*, as well as *King's Quest VI* and *Quest for Glory 3*, offers considerable evidence that **Sierra** has overcome the most oft-sounded complaint about the *new* interface. According to Roberta, the first three titles all had the same drawback. Roberta, Al Lowe (*Leisure Suit Larry V*) and Jim Walls (*Police Quest 3*) were so used to designing games for a parser that, even though they *thought* they had considered all the design implications, the games turned out to be too easy and too short. As Roberta observed, "*King's Quest V* was really linear. You pick up lots of objects and put them in different places. There were a couple of timing puzzles, but that was basically it." In a later discussion, she elaborated further, "We've looked back at the first three parserless games and noticed that there are entirely too many cartoon sequences that just run on and on. We aren't comfortable with simply providing computerized movies."

In *The Dagger of Amon Ra*, Laura uses a notebook interface to communicate with suspects, acquaintances and informers. The notebook is divided, for easy reference, into persons, places, things and miscellaneous. The notebook is dynamic (adding new entries without any effort from the player whenever new names, items or locales are mentioned in the dialogue) and allows Laura to ask any character in the game about anything of which she is aware to that point. Even mundane encounters with minor characters become potentially rich in this type of environment.

Beyond the notebook interface, a worthy addition to the tools of parserless games, the game features familiar icons in the command line. In keeping with the atmosphere of the game, however, the icons have been made to look like Egyptian hieroglyphics. Egyptian hieroglyphics play an important role in solving the mystery, too. At one point in the game, the player can use the characters stored in the notebook to solve puzzles. Apparently, **Sierra** gamers are ready for this kind of challenge because the company received 7,500 responses to a contest in their promotional magazine which used hieroglyphics, compared to under 2,000 responses for a more typical promotional contest.

Besides the Egyptian aspects, *The Dagger of Amon Ra* boasts some other fresh looks. Programmer Jack Magne has developed a scaling technique that will be used in all the upcoming **Sierra** adventures. The technique allows for more realistic images at more than the industry standard three sizes. Instead, images smoothly shrink and enlarge using a distance formula calculated on the fly from a vanishing point.

Sierra's artists are also becoming more versatile in the way they combine various techniques. The current bag of tricks involves: painted/scanned backgrounds, scanned/painted pencil animations, rotoscoping and stop-motion. With the new scaling and art techniques, *The Dagger of Amon Ra* features plenty of new looks. One impressive screen shows a close-up of the main characters from the murderer's perspective. Most interestingly, the murderer is crawling up the inside of a dinosaur at the time and the characters are framed by the sharp teeth of the carnivore. Another special effect takes place when the characters light a lantern. The screen is dark, then illuminates a shaft (replete with its own hieroglyphics) slanted diagonally upward from the bottom left-hand corner of the screen to the top right-hand corner. In addition, the **Sierra** toolset now includes a "magnification" routine that allows the artists to display portions of the screen as though one were looking through a magnifying glass. Amiga owners may remember the effect from **Cinemaware**'s classic Sinbad game. CD-ROM gamers would know the effect from **ICOM**'s *Sherlock*. In short, the games are getting prettier and *The Dagger of Amon Ra* is no exception.

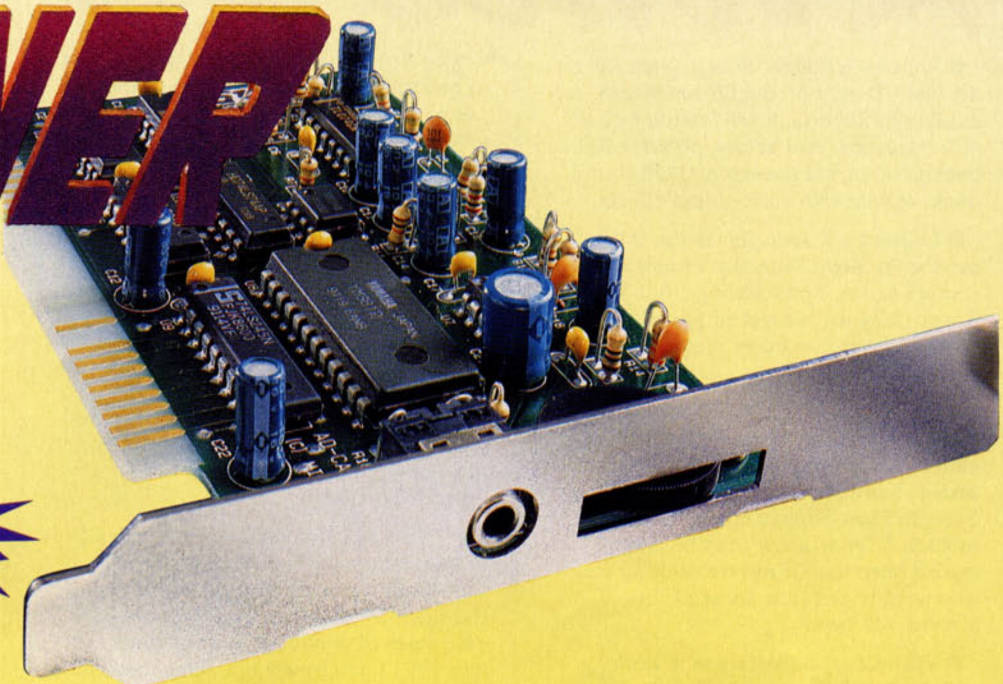
Will Laura Bow Make Good?

Laura Bow II — The Dagger of Amon Ra looks like the kind of game that will be campy, funny, challenging, satisfying and, above all, entertaining. One wonders if the game will be more or less successful with a male-dominated design team and more control-oriented puzzles. Will women still like to play it? Will it get the original *The Colonel's Bequest* players plus some new ones? Ironically, *both* Roberta Williams and Bruce Balfour must be wondering how Laura is going to do in the big city. All the elements for success are certainly present, but it remains for the community of gamers to decide if she's got *It*. **cgw**

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RUMORS

● Roberta Williams' *Scary Tales* will be the first CD-only product from **Sierra**. According to Roberta, it will feature 640 x 400 resolution, real actors, photo-realistic backgrounds, full speech and full soundtrack, replete with eerie sound effects.

● **Legend** will soon unveil the third product in Steve Meretzky's comedy adventure series, *Spellcasting 301: Spring Break*. Why are we not surprised that most of the action takes place at Port Naughtytale?

● *Task Force 1942*, a simulation/wargame featuring tactical naval action, is currently under development at **Microprose**. Admiral William P. Mack (ret.) of Seventh Fleet fame is consulting on the project. A "slide show" can be downloaded from the **GEnie** network for those who want to see how some of the screens will look.

● **Villa Crespo Software** is working on a budget line of products called the *Coffee Break Series*. These are expected to be smaller versions of some of their premium games. At $12.95 (suggested retail price), the games will not have all the "bells and whistles" of the company's front-line games, but we *know* they will be great-playing games.

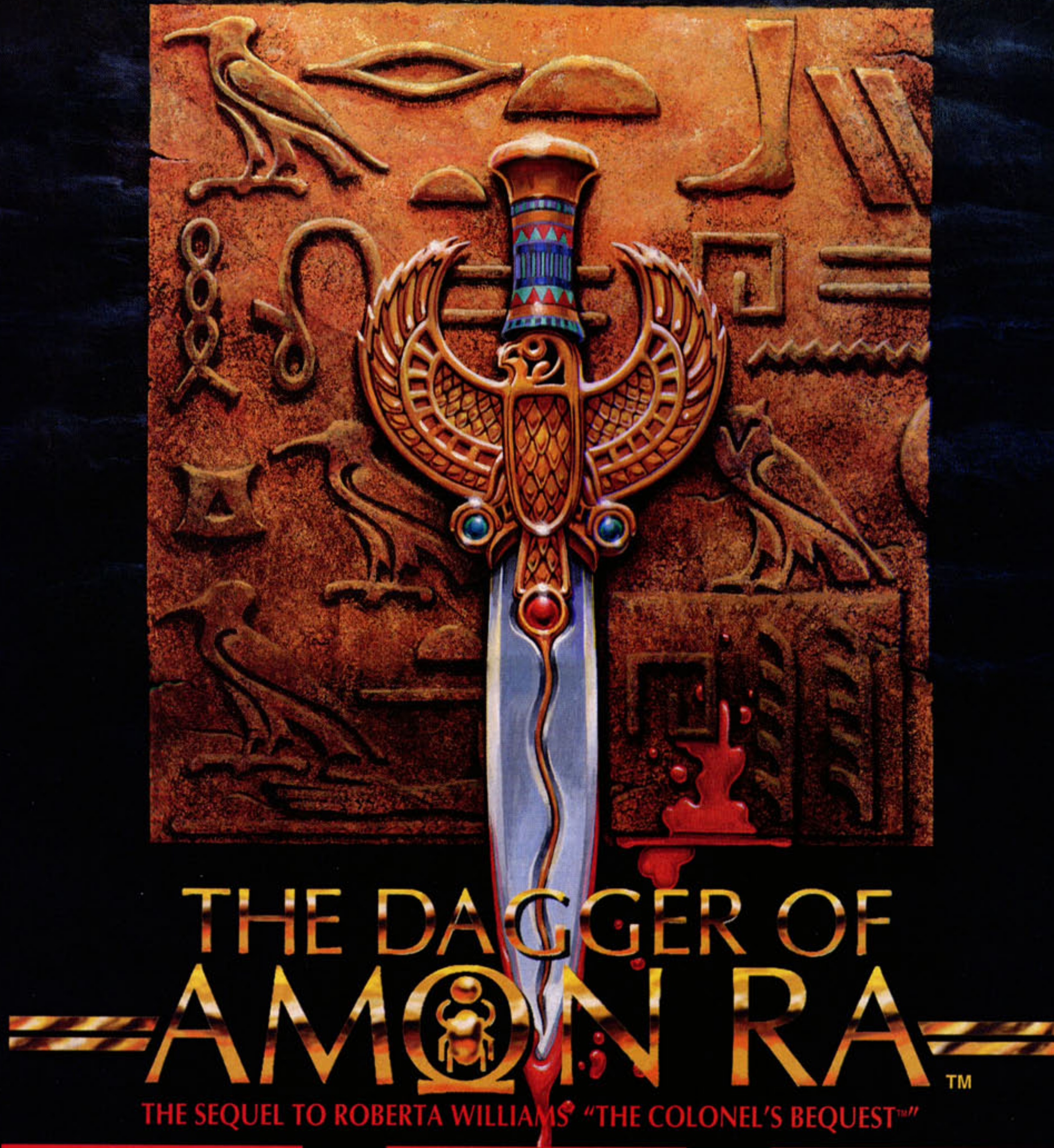
● Comedy may be king in the fall. In addition to *Spellcasting 301*, **Legend** is hard at work on *Eric the Unready* — a comic fantasy saga about the "unluckiest hero in the kingdom." On a slightly more modern front, **Sierra**'s Al Lowe is believed to be working on a "Blazing Saddles"-style comedy-western project. No, the working title is *not* going to be *Leisure Suit Bartender*.

● Those of us anxious to enter the CD-ROM gaming world on a budget hope that **Sega**'s limited success in marketing the CD-ROM in Japan (our sources indicate sales of only 80,000 units since the late 1991 launch) will not delay the U.S. launch. Only one product in Japan seems to really use the capabilities of the hardware, but several U.S. companies are planning to insure that this isn't the case in the U.S. *CGW* recently saw some of the work being done on **Sega** CD products at **Sierra**. Corey Cole, co-designer of the *Quest for Glory* series, is currently working on **Sega CD-ROM** projects. *Adventures of Willy Beamish* and *King's Quest V* are expected to be the first two out of the gate for **Sierra/Dynamix**.

● For those wondering what Jeff Tunnell, former president of **Dynamix**, is up to, our spies tell us that his group (still working with **Dynamix**) is planning to publish a screen-saver for Windows 3.1 called *The Castaway*. It is a delightful online cartoon in which a little guy marooned on a desert island wanders all about the island, breaking out fishing gear, throwing coconuts at passing ships, putting notes in bottles, etc.

● Finally, for those who never got the word: *Quest for Glory 3* will take place in darkest Africa. The creative team has really come together and they are happy with this one. CGW

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Consumer Software and the Mass Crusade

Reflections on the Spring Symposium of the Software Publishers Association



It is very likely that the average *CGW* reader would prefer that the space allotted to articles on the Spring Symposia and Fall Conferences of the **Software Publishers Association** be used for reviews or strategy articles on a computer game (*any* computer game). It is, however, just as true that there are many *CGW* readers who, like the editorial staff, feel that the panels and speeches given at industry events are significant enough to give them insight on where the entertainment software *business* is going and how that direction will affect them. Frankly, there are plenty of different directions the movers, shakers, bean counters, litigators and entrepreneurs can take this fascinating technology we call interactive entertainment and *some* of these directions do not bode well for computer gaming enthusiasts.

The Search for the Holy Grail

For the years that *CGW* has been involved with the **Software Publishers Association (SPA)**, there has always been a longing for the holy grail of becoming a mass media. The financial wizards and marketing myth-makers (with the topspin and backspin associated with both levels of executives) responsible for keeping software publishers "in the black" and growing (at the best) or surviving (at the worst) have long been on a quest for the ethereal glory associated with, and the tangible rewards to be gleaned from, the capacity of reaching the masses with their computer games. These evangelists of the electronic playground lust in their hearts over potential revenues equivalent to the television, film or recording industries. Yet the panel on the "State of the Consumer Software Industry," moderated by Keith Ferrell of *Omni* magazine fame, only managed to put the grail of an entertainment software mass market in the spotlight. It did not help software publishers get enough grime off that grail to shine it up and see what it really looks like.

Most mass media, whether it is filmed (or videotaped), recorded or printed entertainment is basically two-tiered. In filmed entertainment, there is a difference between the box office, network television, cable television and the video rental store. For reaching the customer at the box office, motion picture executives will open their checkbooks to provide "state of the art" special effects for first-run feature films. Neither a network nor a cable executive would be as likely to approve such effects for a "made for TV" movie. Both are viable markets, but the technological entry level is different. Likewise, in the print media, there are hardcover, trade paperback and mass paperback markets. A book that premiers in hardcover is much more likely to have advertising and promotion attached to its release than either type of paperback. Yet many more mass paperback copies of certain titles sell than the same titles rang up in hardbound.

Up until this conference, most executives in the software industry looked at the film and television metaphors, as well as the mass paperback example, as the type of numbers that would enable them to generate optimal revenue and, possibly, have maximum control of their products. Yet, these same executives wanted to be able to produce the flashy new high-tech products that gain both the industry's and the consumer's attention. They longed for the time when *the* channel of distribution would give them the same type of installed base as that of the *multiple* channels of distribution available to other entertainment industries.

At this conference, Mark Goldstein of **Reality Technologies** (developers of *WealthBuilder* and other personal finance programs, as well as the *CEO* game on the **Prodigy** service) suggested that *the* channel had become *channels* of distribution. He cited the existence of good lists of computer-literate consumers, proliferation of more general venues (Price Club, Sears), on-line ordering through commercial networks and increase of superstores as providing new opportunities to reach customers. "Our dream," he elaborated, "is that in three years, the PC will become just another stereo component."

Gerry Blair (Vice-President of Marketing at **Microprose**) expanded upon the possibilities cited by Goldstein when he observed that *OEM* possibilities (in this sense, this usually means bundling software with hardware purchases) were becoming more prevalent and allowed entertainment software publishers to get their products before new groups of potential customers. He predicted that the bundling strategy would become even more important in the future as part of a multi-focused approach to reaching new customers.

Both executives merely mentioned the additional opportunities, but the implica-


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tions of these new opportunities were not lost on the audience. During the question and answer period, concerned developers and publishers asked if the new opportunities would cause companies to offer "cut-down" versions of their products. Goldstein replied with a resounding "No!" Blair explained that the mass market opportunity would require better life-cycle management of products. He noted that games that have begun to slow in sales in the premium channel may be revitalized at lower prices in the mass-market channel. Though he did not draw the print publishing analogy, his point might well have been illustrated by the fact that today's best-selling hardcover may well be next year's best-selling paperback.

Following on those lines, an audience member asked the panel if "watering down" the product included packaging. The consensus of the panel seemed to be that mass market editions and OEM versions would not have the same type of documentation and packaging as the first-release product. None of the panelists wanted to advocate partial programs as being the answer for reaching the price points necessary to reach mass market audiences.

Annette Schofield of **LivingSoft, Inc.** challenged the audience to search for alternative products and alternative markets. Schofield's company publishes a program called *Dress Shop* that enables users to modify dress patterns on the computer and print them out. She noted how few computer products seemed to be designed with women in mind. A representative of **ICOM** noted that 30% of their customers were women and a **Maxis** executive suggested that their registrations indicated about 10% women in their customer base. Blair observed that **Microprose**'s audience was predominantly 25-45 year old males.

Perhaps the most hopeful observation for gamers during this panel was that **Microprose** is becoming increasingly aware of the importance of modem play. "We believe," Blair affirmed, " that modem play is an important feature for real gamers. Mac gamers want to play IBM gamers." The comment offers hope to gamers who are just beginning to discover the joys of connectability and implies that there may be a future opportunity for software being bundled with modems in the near future.

Video Games — Are We Having Fun, Yet?

Of course, the irony of the mass market grail may be seen in the fact that entertainment software companies *have* a mass market in the video game world. Indeed, entertainment software publishers have been very successful in licensing or publishing their successful floppy-based products on the 16-bit cartridge platforms.

In a very real sense, Ed Thomas (a senior buyer for **Waldensoft**) made this clear when he described the different audiences for computer platforms. The personal computer, he observed, appeals to older, more affluent players. They applaud more innovation and variety in their games and can get mature subject matter that is not currently available on video game machines. Further, the 8-bit videogamer requires familiarity in theme and presentation. They buy the same style of game over and over. Now, with the 16-bit platforms, an older audience that enjoys more intricate game play has arrived and the audience is expected to expand when the CD-ROM drives reach the consumer level.



Dare we suggest that personal computer games are analogous to hardcovers, 16-bit videogames to paperbacks and 8-bit videogames to books in a formula-based series (i.e. romance novels and pulp adventures)? Jeff Braun of **Maxis** believes that the industry's problem is that it has focused on the CD-ROM media and platforms instead of considering the content and technology that *really* distinguishes a product. He believes that the key to reaching a larger market with all interactive media (CD-ROM, personal computers and videogames) is to try to come up with software that no one has expected. Braun's appeal to quality closed with a quotation from Bill Harrah of the successful casino chain, "You just give people quality and they recognize it."

It may well be that the so-called "holy grail" of the mass media has been right in front of the entertainment software industry all along. Quality may very well be the determining factor in success. Certainly **GamePro**'s John Rousseau did nothing to dispel that contention when he observed that the caliber of movie games (i.e. games based on motion picture licenses) had been lousy in the last few years, so most of his readers would not buy them anymore. Diane Drosnes' (Director of Licensing, **SEGA of America**) presentation almost immediately followed up Rousseau's comment with the *caveat* that movie licenses are a "crapshoot." She underlined the fact that a license can bring attention to a game, generate additional publicity and offer promotional opportunities, but observed that it contributes to a higher price and cost of goods without guaranteeing the success of a game. It remained unsaid that the *game* would eventually determine its own level of success.

Drosnes' presentation underscored the changing nature of licensed entertainment, however. Her list of questions highlighted the close relationship between film products and licensed game in a new era of intermedia (multimedia): "Can you tie in the licensing fees [for a film license] with box office performance?" "Will you be able to use the stars' likenesses?" "Will the music be part of the license or require a separate negotiation?" "Will you be able to use film clips [both in the game and as part of promotion] for your game?" "Will you have access to the sets for shooting footage for backgrounds?" "Will there be opportunities for cross-promotion?" and "Will the film distributor include the game in the ads for the film?" Such questions indicate a growing and more sophisticated market with new design and marketing challenges. Certainly, licensed products close the gap between that ephemeral "mass market" that software publishers long to reach and their traditional market. How successful publishers are going to be in reaching that "mass market" may well depend on the answers to such questions.

Shining the Grail

The new opportunities in marketing channels and additional platforms go a considerable way toward assisting software publishers in their ongoing quest for the holy grail of "mass market" sales. The gaming community must hope, however, that in grasping for that broader market, the publishers do not forget their existing kingdom — the realm of early adopters, dedicated gamers and sophisticated consumers. *CGW* predicts that this year's **SPA Spring Symposium** will not offer the last discussions on this quest for the holy grail. **CGW**


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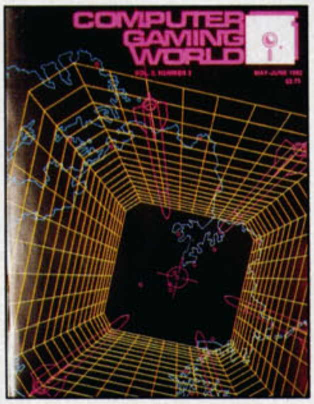
ONCE UPON A TIME

Computer gaming in days gone by

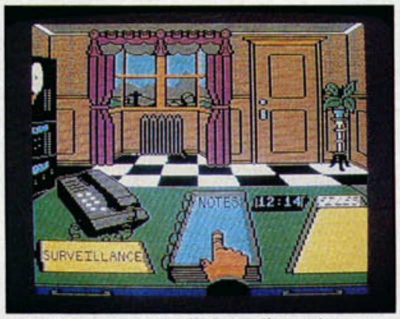
It's time once again to sit back and take a nostalgic tour of computer gaming in days gone by, as seen through the pages of the oldest computer gaming magazine in the world: *Computer Gaming World*. In the May-June 1982 issue of *CGW*, we reviewed what would become one of the classic computer games of all time. We said:

> ***Wizardry: The Proving Grounds of the Mad Overlord** is a game of epic proportions comprising nearly 14,000 lines of code on both sides of a diskette. The brainchild of Andrew Greenberg and Robert Woodhead, Wizardry is the culmination of nearly two and a half man-years of intensive effort. The original Wizardry program was written in BASIC, which proved too slow to make the game a viable product. The game was rewritten in Pascal but was delayed until the release of a runtime Pascal system which would allow the game to be played on Apples without language systems. The final result is a game which is superbly playable but with enough variation and complexity to whet the appetite of the most discriminating adventurer.*









Clockwise from top left: Wizardry; June 1982 issue cover; Killed Until Dead; June 1987 issue cover

Compared with other games of the time, Wizardry was indeed a large game. Most games of the day took a man-year or less to program. However, most top-selling computer games these days have 6 to 8 man-years of development in them. Up to twelve people worked on Wizardry VII (Crusaders of the Dark Savant) for 18 months. The 14,000 lines of code in Proving Grounds produced a game of 10 dungeon levels. If Wizardry VII had been done in the same manner, the volume of code would have translated to 240 Proving Ground levels!

In conclusion the author made the bold assertion:

> *I would rate Wizardry as one of the all-time classic computer games. It sets the standard by which all fantasy role playing games should be compared. In the years to come, if there is ever a Gaming Hall of Fame, Wizardry receives my vote as the first entry into its hallowed halls."*

Indeed, when the *Computer Gaming World* Hall of Fame was instituted in May 1988, Wizardry was one of the original nine inductees.

In that same issue, ten years ago, *CGW* interviewed Roberta Williams concerning her latest design: **Time Zone**. We said:

> *At six two-sided disks, Time Zone is easily the largest game available. A game of this magnitude must, because of sheer size alone, become a landmark in the computer gaming hobby. As to whether the game becomes more than a landmark (i.e. a "watershed game" or "classic") remains to be seen. It will be interesting to see how you, the buying public, responds to this huge and expensive game ($99.95).*

The judgment of time is that Time Zone was indeed a landmark game, but it did not become a classic in the Wizardry sense.

In the June-July 1987 issue of *CGW* (#38), King's Quest III (To Heir is Human) and Bard's Tale II (The Destiny Knight), among others, were reviewed.

In a company report on Activision, Charles Ardai revealed an interesting rumor. He said:

> *Activision, it seems, is working on a Neuromancer computer game, which will probably feature art by Peter Max, an original soundtrack by Devo, backing by Timothy Leary and promotion by celebrities such as Grace Jones. Certainly, this is a program worth waiting for. Will it be a good game, however? That, in the end, is the question Activision must face.*

Well, sort of.

The game *did* get made, but by an Activision/Mediagenic affiliate: Interplay Productions. And it was good enough to receive the *1989 Computer Gaming World Adventure Game of the Year* award.

In the same issue Scorpia did a think piece on the state of the art in computer games. Five years ago she said:

> *We stand now in the dawn of the 16-bit computer* [Ed. note: she means computer here, not cartridge machine]. *These are the machines of the future. With their superior graphics and huge amounts of memory, the possibilities for the CRPG are enormous. If Lord British can do so much with 64K, what is the potential with 256K or 512K or more? The prospect is truly mind-boggling.*
>
> *Think of what could be done: monsters you can converse with, and perhaps outwit without having to draw your sword; NPCs who join your party, who have definite personalities of their own, and behave like real people. A world that changes in response to your actions, for better or worse, throughout the game. The list is almost endless.*
>
> *With all this additional memory, the question is: will the game designers and programmers work on enhancing, broadening, and refining the personal, or will they follow the same old path of hack-and-slash, glossed over with prettier graphics and nicer sound effects? Only time will tell.*

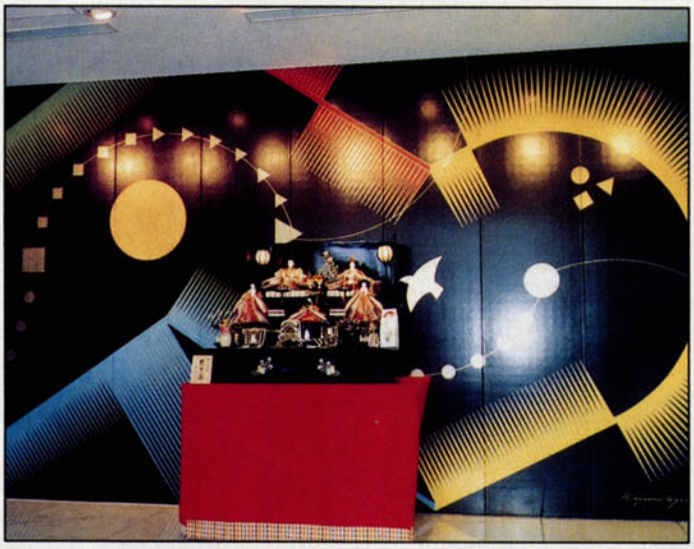
It sort of sounds like something Scorpia would write in 1992, doesn't it? **CGW**


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Orient Impressed

CGW's Editor Gets an International Education

by Johnny L. Wilson



A shrine in the main lobby of Koei Corporation headquarters.

The "ubiquitous they" tend to mouth cliches such as "Travel is broadening!" This can be frightening when one's physique is, as in this editor's case, already as wide as the whales one joins Greenpeace to rescue. It can also be frightening when, again in this editor's case, one tends to *already* be so "broad-minded" that he is accused of setting a wide mental spinnaker to try to catch any gist of an idea. Indeed, some have claimed he latches onto these zephyr-like ideas in order to nudge the bow of his arguments ahead of the competition without actually having to worry about the precise direction in which the logical finish line lies.

So, it should come as a pleasant surprise to the readers of this magazine that, during a recent tour of companies in the Japanese and Taiwanese entertainment software industry, this jaded journalist had all his presuppositions about Japan and Taiwan turned on end. He learned that, in many cases, the presumed finish line of his presuppositions was more like the starting line of reality.

Global Myth #1: Nearly every Japanese household has a personal computer.

More Accurate Observation #1: Not very many Japanese homes actually have personal computers. **Apple** believes that it is making great inroads in the personal computer market because they have a user base of over 200,000 color Macintosh computers in the market. Mr. Yoichi Erikawa, President and CEO of **Koei Corporation** agrees that the Macintosh is growing at a fast pace in Japan, but observes that most are being used in businesses for purposes of desktop publishing. He does not perceive the Mac as necessarily winning the battle of the home. **Apple** may be able to do so, however, as this editor saw *Macintosh LCs* on sale in Akihabara, the major electronics district in Tokyo, for the same price he had paid for an *LC* in the U.S. prior to **Apple**'s last round of price cuts (see picture on page 28).

On the DOS side, the **NEC 9801** computer handles Japanese text (Kanji) characters via ROM and is considerably more expensive than IBM clones in the United States. Many software developers in Japan long for the days when such an expensive proposition will be superseded by *DOS V*, a powerful new operating system that can handle Japanese characters through software solutions and allows users to put Japanese software on more standardized MS-DOS clones. *DOS V* is also supposed to be *Windows*-compatible in the long run and will be able to support desktop publishing (which the 9801 has not been able to accomplish). Several industry observers hope *DOS V* will make personal computers more accessible by bringing costs down, but note that the *DOS V* standard is being advocated by hardware manufacturers that lost out to **NEC** in an earlier battle for a standard.



Hello Kitty!, *a licensed game on a dedicated word processor platform.*

In the meantime, while John(ny) Scully(seed) is planting **Apples** in the land of the rising sun and *DOS V* tries to win its "victory," there are millions of videogame consoles to be supported. **Nintendo**'s *SuperFamicom* (i.e. *Super Nintendo*) gets serious attention in Japan. More than a half-dozen magazines cover the platform, as well as **NEC**'s *PC Engine* (i.e. *Turbo-Grafx 16*) and **Sega**'s *Mega-Drive* (i.e. *Genesis*).

One really fascinating discovery for this editor was that there are so many dedicated word processors in Japan that companies like **ASCII Software** are converting computer games, complete with graphics, to the word processor format. We saw word processor versions of **Activision's** original *Shanghai* and a *Hello Kitty!* game in progress (pictured).

Global Myth #2: Anything American will sell in the Japanese market.

More Accurate Observation #2: Although *SimCity* was a phenomenal success in Japan, *SimEarth* on the *Super-Famicom* has left most Japanese gamers cold. The software toy idea just does not seem to translate very well to the Japanese market. **Koei**'s strategy games sell extremely well on the consoles, but they are the exception rather than the rule. Instead, there is a heavy *action* orientation to the Japanese market. Videogames which emulate the fast-scroll-

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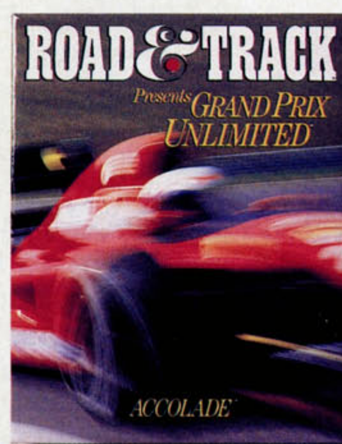


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Macintoshes on sale in Akihabara.

ing action, bright color palettes and loud soundtracks of the coin-op arcades (which are still flourishing in every major neighborhood, usually multi-storied) seem most successful. As **Activision**'s Bill Swartz joked (when walking by a coin-op arcade in Shinjuku where young adolescent males were physically kick-boxing with a custom coin-op game), "You're not in Kansas anymore." Actually, Japanese journalists were rather disappointed with *CGW*'s editor because of his provincial preference for strategy games over challenging action games.

Global Myth #3: The Japanese don't really care what Americans think.

More Accurate Observation #3: On the contrary, **Sega** takes into consideration the *American* market whenever they are making acquisition decisions for third-party or licensed products. Some products that might have been perfectly acceptable in the Japanese context have been rejected because they could not be sold in the American market.

Indeed, **Koei** thought that they might be focusing too narrowly on Chinese and Japanese history with their games. So, in addition to the recently released *L'Empereur*, the company plans to release *Liberty or Death* and *PTO — Pacific Theatre of Operations* in the U.S. during November of 1992.

Global Myth #4: Taiwan is a smaller personal computer market than Japan.

More Accurate Observation #4: Taiwan alone has more than one million personal computers. With 30% of these computers in the home, this represents a significantly larger penetration of computers per household than is found in Japan. Though most computer games sell under 10,000 units in Hong Kong and Taiwan combined, the Chinese-speaking market is still a significant market. In addition to computer games, the health of the hobby in Taiwan may be seen by the fact that the Chinese version of *Com-*



The staff of Chinese CGW.



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this one wants to rip your lungs out.

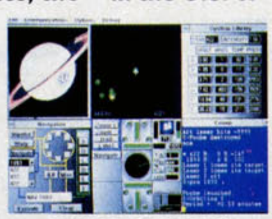
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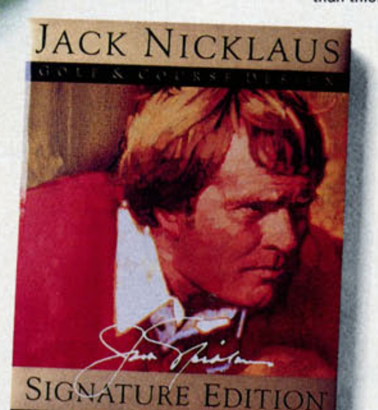


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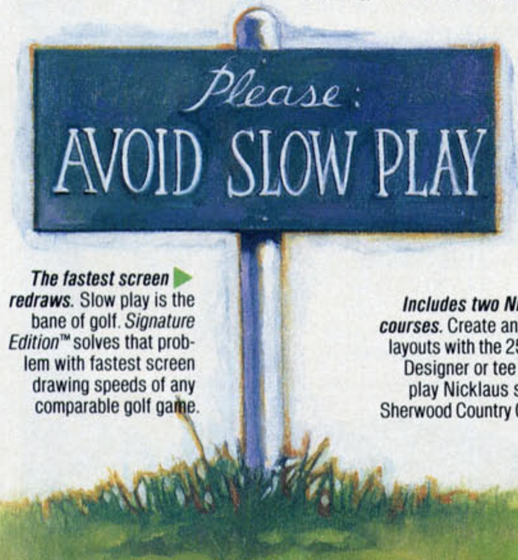




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puter Gaming World sells 15,000 copies per month.

Global Myth #5: All the Taiwanese do is *pirate* software.

More Accurate Observation #5: Taiwanese copyright law is changing. This means that even the companies which formerly pirated software are going to become legitimate in the next few years. One of the early leaders in this flight to legitimacy was **Asia Recording.** Under the leadership of Chin-Po Wang (President and CEO) and Stephen Wong (editor of Chinese *CGW*), **Asia Recording** aggressively purchased licenses to publish legitimate versions of U.S. software products in Chinese markets. Such licenses have effectively doubled the price that gamers pay for computer games in Taiwan. With **Acer**, another former pirate company and a rival to **Asia**, entering the field, the bidding is sure to escalate and the prices continue to increase. What that will do to American software sales in Chinese-speaking markets remains to be seen.

Asia Recording is not sitting idly by, however. They have hired Yang Ti as the planner for the company's research and development. He has just finished working on two original titles for **Asia**. One is a Chinese CRPG with the title *Shadow Knights*. Artist Chang Kuen Yao has created a look reminiscent of *Might and Magic III* and utilized an interface similar to *Times of Lore* in order to tell an ancient Chinese legend scripted by Wu Chen Yee. A more traditional "occidental" CRPG is also in the works at the Taipei studio.

Global Truth? Computer entertainment, for all its differences in taste, cultures, platforms and expectations, is a catalyst in building the global community. Playing together is important if we are to learn how to get along together. This journalist is absolutely convinced that computer gaming can help us understand ourselves *and* others. Here's hoping that's positive! **cgw**



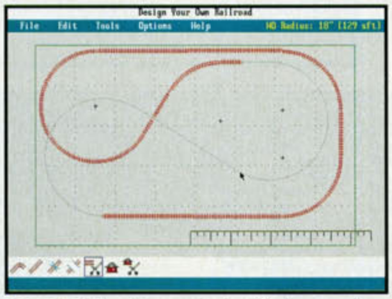
Chang Kuen Yao at his workstation.

DESIGN SOFTWARE: More Than A Game. . .

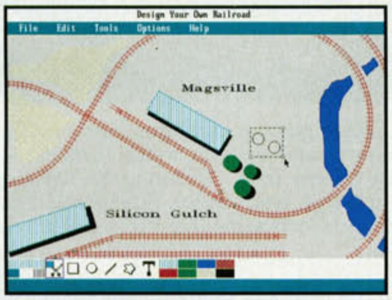
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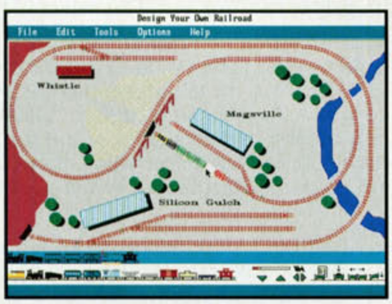
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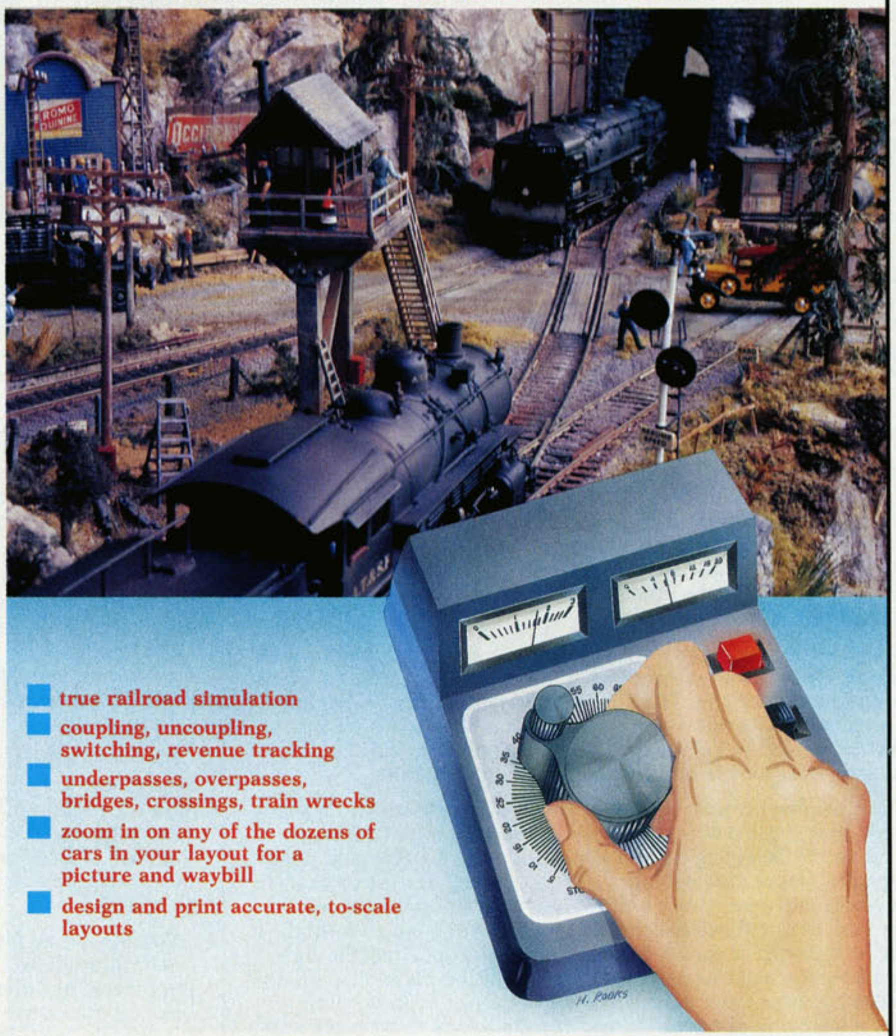
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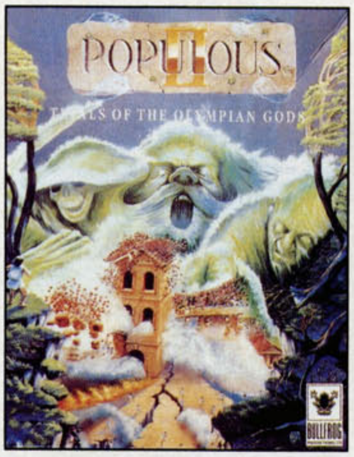
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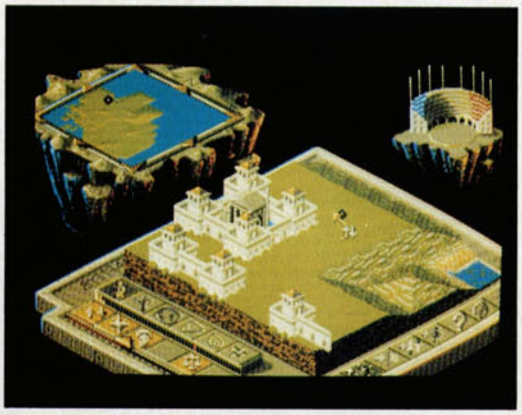
Divine *Mana*-gement

TITLE:	Populous II: Trials of the Olympian Gods
SYSTEM:	Amiga
PROTECTION:	Document Look-up
PRICE:	$49.95
DEVELOPER:	Bullfrog Productions Ltd.
DISTRIBUTOR:	Electronic Arts San Mateo, CA

Electronic Arts' Populous II

by Maxwell Eden





Homer (no, not Bart Simpson's father) writes in the epic *Iliad* of a war between the Greeks and the Trojans that includes a classic tale of deception. After besieging Troy for nine years, the Greeks pretended to depart, leaving behind a huge wooden horse, which the Trojans triumphantly took into the walled city. Warriors hidden inside the horse later opened the city gates and the Greek army sacked Troy.

Like the Trojan Horse, once *Populous II* (*Pop II*) is gleefully running inside the computer, nothing can stop hordes of "sprite"ly, "byte"-sized worshippers from invading the screen. Players will be held captive by losing all track of time.

Building upon and greatly enhancing the deity powers and strategic conventions of the best-selling *Populous*, in which the world just wasn't big enough for two supreme beings, *Pop II* transports players into an absorbing, non-stop struggle for power, using Greek mythology as a backdrop.

The God Father, By Zeus!

As an offspring son of mortal woman and supreme god Zeus, the player demands that his father grant him his birthright — immortality and a seat among the gods of the Pantheon. Zeus conditionally accepts by making his son an offer he can't refuse. Defeat 32 gods and goddesses who rule the 1000 worlds of *Pop II*. Then, for the final showdown, beat Zeus at his own game and become an Olympian god.

Pop II is well-paced and entertaining, with a smooth interactive interface. Players will be swept up in the visually superb, constantly animated excitement. The Divine Intervention Effects sequences are the stars of this show and include an awesome arsenal of devastation such as Lightening, Plague, Whirlwinds, Fire Columns, Tidal Waves and Hurricanes to name a few.

Willing to give his upstart mortal son a shot at the title, Zeus endows him with the power to choose his very own god persona and name. By selecting from a variety of eyes, mouths and headpieces, the player conjures up a countenance that may appear benevolent and wise, fierce and war-like, brutish and cruel, or some variation of these characteristics. Since the player's "god looks" are crucial to how the other deities in *Pop II* react in battle, an image should be selected carefully. If the player has an aggressive look, the opponent god may wage war even harder. Adopt a scholarly appearance and combat tends to be more subtle and clever. A deity may respond violently to an opposing fire-god and passively to a water-god.

To get things started, Zeus also throws in a few critical thunderbolts of deity experience. Measly though they might seem, the player applies these thunderbolts toward mastery of People, Vegetation, Earth, Air, Fire and Water — the six forces of nature known as the Divine Intervention Effects.

Best Seat in the House

The player looks down upon the earth in a godly three-quarter angle vista that makes for a superb 3-D perspective of all the commotion. There are three views. The Close-Up Map, World Map and the Colosseum appear simultaneously as islands floating in space. Two-thirds of the screen is devoted to the close-up map, where players carry out divine acts, view settlements and walkers, watch battles and destroy enemy land. Bordering the close-up map are the Divine Intervention Effects and Basic Commands icon menu bars that control the game.

Since moving around the land and invoking effects quickly is fundamental to winning, *Pop II*'s point-and-click icon-driven system is ideal for fast game play. Zeus starts players out with a few divine effects; the rest must be acquired by winning worlds, and which earned effects the player can use varies from world to world.

The Close-Up Map displays a magnified area of a corresponding point located on the World Map, which represents the entire landscape of the current world. As the game begins, "Good" and "Bad" populations usually inhabit opposite sides of the map. Blinking dots of different colors provide information about Good and Bad settlements and what catastrophic tricks the opponent god is up to.

As the Good (blue) and Bad (red) populations grow, representatives of both sides enter the Colosseum. Good worshippers sit on the left and Bad on the right, so players can tell at a glance how well they're doing. The Colosseum can also display the level of intelligence of a settlement, or a "Walker" (the peripatetic on-screen character who represents a group of worshippers).

Sounds are an integral aspect of *Pop II*. A steady heartbeat is heard throughout the game; the slower it pounds, the healthier the player. At times, a roaring blaze, rumbling earthquake, or brewing tidal wave evokes screams from the blue population or the tell-tale "caw-caw" of vultures (plague) provides audible signals that the opponent deity is wreaking havoc on Good settlements. Players must check to see what's going on and, if possible, repair land and save the lives of their worshippers.

Greece Lightning

There are two modes of play: Conquest Games and Custom Games. There is also a Serial Game option which permits play against a human opponent via data link between computers by modem or serial cable.

In Conquest mode, the player must win a series of worlds by decidedly defeating opponent gods. Worlds get progressively more difficult as players face both harsher terrain types and more potent Divine Intervention Effects from stronger gods. Fortunately, one can opt to use the Computer Assist feature so that

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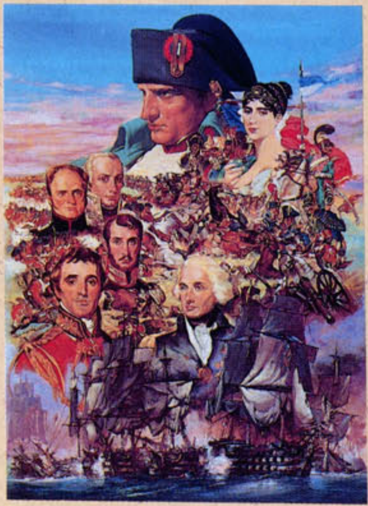
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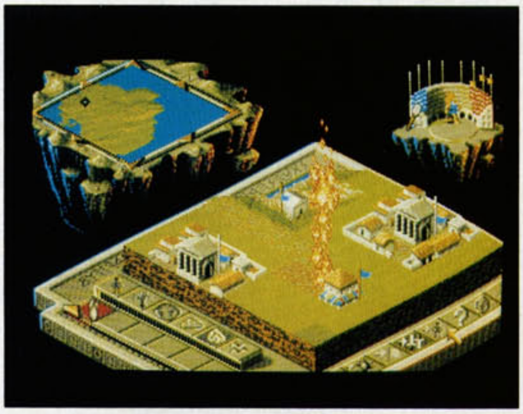
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it is possible to concentrate on defeating the enemy while the computer takes over routine responsibilities (lowering/raising land and spreading settlements, etc.).



Players who conquer worlds are rewarded with thunderbolts of experience by the defeated god. How many thunderbolts depends on how deftly the player won. Marginal wins may mean no thunderbolts. The more experience a player has in a specific element, the more potent the powers of destruction in that category. Each time a player wins, or loses a world, Zeus provides the name of the next world to tackle. One should write down this name; games can be saved and resumed. Players don't necessarily have to conquer all 1,000 worlds in succession. Winning a battle skillfully often means skipping several worlds ahead.

Custom mode lets the player call the shots by changing the variables of a world before attempting to conquer it. While Custom games won't advance players toward the final victory against Zeus in the Conquest series, it is useful for experimentation.

Mana Grows on Trees

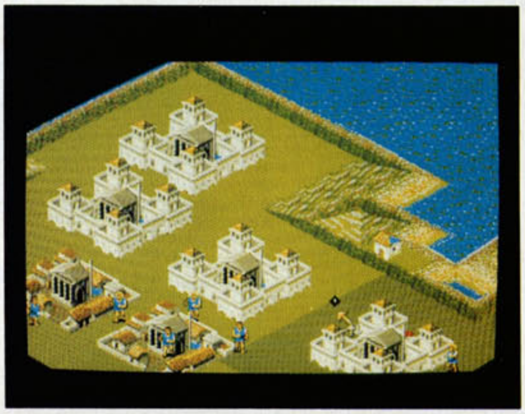
Of course, a god without worshippers is a god without mana and that adds up to a bankrupt deity for both player and opponent. As in the original *Populous*, mana is still the currency for controlling the forces of nature and unleashing judgments upon the enemy. Mana comes from the spiritual offerings of the player's population. A savvy god earns more mana by spending some mana to materialize roads, walled cities and greenery.

Although the Greek deities had control over nature, their powers were severely limited by a monkey wrench called fate, which takes the form of unpredictable acts of destruction during a Conquest game — randomly benefiting Bad or Good.

Follow the Leader

Papal Magnets are icons of worship that are vital tactical tools in playing the game. A papal magnet is used by Good and Bad to create leaders (male or female) and heroes, as well as to influence the population to follow the leader into new territory. A unique icon distinguishes the Good from the Bad papal magnet. Good and Bad are terms used solely to differentiate sides, not suggest a struggle between good and evil. Life on the player's side is no better or worse than under the "bad" god. In Conquest games, the player is Good and the opponent is Bad by default.

Among the worshippers are Walkers, who represent the total population of a particular settlement. Walkers are seen on the close-up map trekking, building, growing old, dying and fighting enemy Walkers. The level of intelligence of a Walker is equal to the technology of the dwelling they emerged from (i.e. if they came from a hut, they're primitive; if they came from a fortified castle, they're more advanced).



The first Walker to encounter the papal magnet is engulfed in a blue flame that converts him or her into the leader. Only when a leader has been created can a player move the papal magnet to another area on the world map. One tactic is to move the magnet to Bad territory, then influence Good Walkers to move toward the icon, killing the enemy while establishing settlements along the way. Once leaders are created, both the player and opponent god can use the papal magnet to transform said leader into one of six (one from each element of effects) Heroes, each able to employ a unique method for destroying the enemy.

Hero Achilles, for example, is a fast runner with a head of flames who burns all enemies in his path. Perseus, the most intelligent of the Greek heroes, makes a strong and skillful soldier on a crusade to destroy Bad settlements. Follow each hero to observe his strengths and weaknesses. Although heroes are much stronger than leaders, they weaken in battle and can be killed by overwhelming odds. Players may, with sufficient mana, turn as many leaders into heroes as they wish. Each time a player creates a hero, a new leader must be ordained by the blue flame ritual. Opponent deities can also transform their leaders into the same heroes who fight against Good.

To Err Is Human, To Forgive Divine

Criticisms of *Pop II* amount to a tempest in a teapot. Still, there are several items worth mentioning. The manual says that Helen of Troy, the water element hero, leads enemy Walkers to a watery grave. More precisely, she marches into enemy territory and charms opposing worshippers away from their jobs until they die. When the "Show Opponent Deity" button is toggled on the "Next Conquest Screen," text describing the god is sometimes incomplete. Finally, sound effects, while excellent overall, often lag behind the player's frenzy of divine devastation.

Pop II is a game of war, so it is understandable that the majority of special effects are destructive with only a few constructive effects thrown in. Baptismal Fonts, for example, are useful tools for converting Walkers to the opposite faith. By placing fonts in the middle of enemy territory, enemy units which fall into the fonts will come out Good. It is simply too bad that the game focuses on artifacts as the method of conversion rather than having rival populations respond to more productive, humane acts. The latter would provide more intrigue and a sense of morality. What if sparing a badly beaten enemy settlement counted for something with Zeus?

Awe-Struck

Remember the episode in *Fantasia* in which Mickey Mouse was the *Sorcerer's Apprentice* and lost control of his master's magic? Divine power without experience can backfire. For example, Laying Plague to the enemy can spread to the player's own turf. Conversely, if the opponent deity casts a plague on Good worshippers, players can invade and infect the opposition.

Killing enemy leaders quickly and as often as possible is a must. To win a world, the enemy population must be completely annihilated. Once the population advantage goes to the opponent, playing catch-up is extremely difficult, but there are successful strategies for resourceful sons (or daughters) of Zeus. For example, one can strike the enemy leader with a continuous stream of lightning bolts. Enemy Walkers will blindly follow their leader into the path of electrocution. So, while the enemy is getting roasted, Good populations can settle, increase their numbers and offer more mana.

The Oracle

Populous II is an elaborate program that is instantly absorbing and addictive. Fate will smile upon players who get *Populous II*. Who said mana can't buy happiness? **cgw**

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Borodino	$30
Bravo Romeo Delta	$37
Campaign	$29
Carriers at War	$37
Carrier Strike	$42
Charge Light Brigade	$34
Civil War SSI	$42
Cohort	$34
Conflict: Korea	$37
Conflict: Middle East	$37
Conflict in Vietnam	$ 9
Decision at Gettysburg	$29
Dreadnoughts	$42
Dreadnoughts: Bismark	$29
Dreadnoughts: Ironclads	$29
Fall Gelb	$36
Fifth Eskadra	$36
Fire Brigade	$34
Fleet Med	$36
German Raider Atlantis	$26
Gettysburg:Turning Pnt	$37
Golan Front	$36
Grand Fleet	$36
Grey Seas, Grey Skies	$36
Halls of Montezuma	$24
Harpoon	$25
Harpoon Set 2 or 3	$19
Harpoon Set 4	$24
Harpoon Editor	$27
Harpoon Challenger Pak	$42
In Harms Way	$36
Kampfgruppe	$37
Kriegsmarine	$36
Kursk Campaign	$36
Long Lance	$36
MacArthur's War	$29
Main Bttle Tank C Grm	$36
Main Bttle Tank N Grm	$36
Main Bttle Tank ME	$36
Malta Storm	$36
Man of War	$36
Mare Nostrum	$26
Marianas Turkey Shoot	$28
Midway	$26
Moscow Campaign	$36
North & South	$27
Northern Fleet	$36

IBM WARGAMES

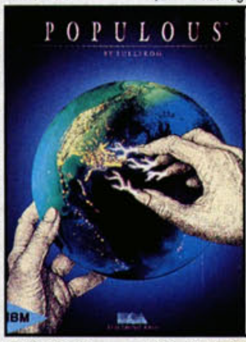
Operation Overlord	$36
Pacific Storm Midway	$36
Pacific Storm Solomons	$36
Panzer Battles	$22
Patriot	$38
Patriot Battle Sets Ea	$24
Patriot Editor	$27
Patton vs Rommel	$15
Patton Strikes Back	$27
Prelude to Jutland	$26
Red Lightning	$12
Return to the Falklands	$28
Rising Sun	$26
Rommel at El Alamein	$36
Rommel at Gazala	$36
Rommel North Africa	$24
Rorke's Drift	$34
Second Front	$37
Seventh Fleet	$36
Stalingrad Campaign	$36
Storm Across Europe	$12
Third Reich	$27
To The Rhine	$36
Typhoon of Steel	$12
UMS 2	$19
UMS 2 Civil War	$24
UMS 2 Desert Storm	$20
UMS 2 Planet Editor	$28
V for Victory	$38
War in the Falklands	$26
Warship Changed Hist	$26
Waterloo	$12
Western Front	$37
White Death	$29



'FLY THE GRAND CANYON' presents a unique perspective on one of the world's natural wonders. You are given simplified flight controls to allow even the novice to quickly enjoy touring the canyon. Includes 3D contour maps, 1800 square miles of terrain, and 3D glasses. **$45**

IBM STRATEGY

Castles	$36
Castles Disk 1	$19
Centurion	$19
Civilization	$39
Command HQ	$19
Conquered Kingdoms	$36
Covert Action	$29
Crisis in the Kremlin	$37
Designasaurus 2	$28
Dino Wars	$28
DRAGON Force	$31
Dragon Lord	$12
Dune	$29
Empire	$31
Empire Deluxe	$42
Final Conflict	$34
FireTeam 2200	$29
FireTeam Const Kit	$25
Fort Apache	$34
Full Metal Planet	$31
Genghis Khan	$37
Global Conquest	$39
Global Effect	$32
Gold of the Americas	$12
Hidden Agenda	$39
Imperium	$26
Lemmings	$32
Lemmings Data Disk	$19
L'Empereur	$37
Liberty or Death	$37
Lost Admiral	$34
Lost Admiral Scenario	$23
Lost Admiral Enhanced	$38
Lost Patrol	$12
Medieval Lords	$37
Medieval Warriors	$15
Mega Lo Mania	$31
Merchant Colony	$34
Millenium	$24
Nobunaga 1 or 2	$37
Nuclear War	$12
Objection	$34
Objection Enh	$89
Ogre	$19
Omega	$30
Operation Combat	$15
Overlord	$29
Pacific Theater of Oper	$42
Perfect General	$34
Perfect General Disk 2	$23
Populous	$21
Populous Promise Land	$14
Populous 2	$38
Power Monger	$34
PowerMonger WW1	$21
Project Moonbase	$24
Railroad Empire	$34
Railroad Tycoon	$34
Rampart	$27
Reach for the Stars 3	$19
Realms	$29
Renegade Legion Intrcpt	$12
Revolution 76	$29
Rider of Rohan	$19
RoboSport WIN	$37
Romanc 3 Kngdm 1or2	$42
Rules of Engagement	$37
Second Conflict	$34
Seven Cities of Gold	$12
Siege	$38
Sim Ant	$37
SimCity	$29
SimCity for Windows	$37
SimCity Graphic 1 or 2	$23
SimCity Terrain Editor	$15
SimEarth	$41
Star Control	$29
Star Control 2	$37
Starfleet 1 or 2	$38
Stellar Crusade	$12
Strategic Forces	$19



'POPULOUS' is a classic strategy game. You are 1 of 2 deities battling for control of the entire world. With ice, grassland, and desert there are over 500 worlds to conquer. Disasters are your divine prerogative - unleash volcanoes, earthquakes, swamps and floods on your enemies. Includes modem play. **$21**

IBM STRATEGY

Sword of Aragon	$28
Task Force 1942	$39
Theatre of War	$32
Theatre Sets	$21
Third Reich	$27
Traders	$29
Utopia	$31
Visions of Aftermath	$12
Warlords	$29
Worlds at War	$29



'SIEGE' is a medieval style castle assault game. You are given four castles to attack and defend in a one castle scenario or an extended campaign. Includes historical troops (French, English, Celtic), mythical troops (Elves, Trolls, Giants), siege towers, battering rams, catapults, and oil. **$38**

IBM ADVENTURE

Advnts Willie Beamish	$34
Advnts Willie Beamish 2	$39
All Dogs Go to Heaven	$13
Altered Destiny	$34
B.A.T.	$19
Castle of Dr Brain	$34
Chmbr Sci Mutnt Prstss	$25
Code Name: Iceman	$21
CodeName : Iceman 2	$39
Colonel Bequest	$21
Colonel Bequest 2	$34
Conquests of Camelot	$21
Conquests of Longbow	$34
Conspiracy Deadlock	$34
Countdown	$37
Covert Action	$29
Crime Does Not Pay	$29
Crime Wave	$37
Cruise for a Corpse	$34
Dark Heart of Uukrul	$34
David Wolf:Scrt Agnt	$15
Deja Vu	$12
Deja Vu 2 Lost in LV	$12
Die Hard	$28
Don't Go Alone	$ 9
Dr Doom's Revenge	$ 9
Duck Tales	$15
Earthrise	$12
East v West:Berlin '48	$ 9
Eco Quest 1	$34
Felony	$12
Free DC	$29
Future Wars	$28
Galleons of Glory	$29
Gamma Force	$ 9
Gateway	$36
Geisha	$32
Godfather	$32
Gold Rush	$15
Grail Quest	$27
Hare Raising Havoc	$32
Harley Davidson	$12
Heart of China	$34
Hostage	$ 9
Hound of Shadow	$17
Indy Jones L Crsd ega	$21
Indy Jones L Crsd vga	$27
Indy Jones Fate Atlantis	$38
James Bond Stealth Aff	$34
King's Quest 1 Enhncd	$34
King's Quest 2 or 3	$28
King's Quest 4	$34

IBM ADVENTURE

King's Quest 5 ega	$34
King's Quest 5 vga	$39
King's Quest 6 vga	$39
Kristal	$15
Lane Mastodon	$12
Leather Goddesses 2	$42
Leisure Suit Lrry 1 ega	$16
Leisure Suit Lrry 1 vga	$39
Leisure Suit Lrry 2, 3or5	$34
Leisure Suit Lrry Bundle	$39
Light Quest	$32
Loom	$19
Lost in LA	$37
Lost Treasures Infocom	$42
Magnetic Scrolls Bndl	$34
Manhunter NY	$28
Manhunter SF	$18
Maniac Mansion	$18
Martian Memorandum	$37
Mean Streets	$37
Mixed Up Mthr Goose	$29
Mixed Up Fairy Tales	$29
Murder by the Dozen	$15
Murder Club	$28
Murders in Space	$12
Oregon Trail	$28
Out of this World	$36
Plan 9 from Outer Space	$31
Police Quest 1	$28
Police Quest 2 or 3	$34
Prince of Persia	$25
Rise of the Dragon EGA	$29
Rise of the Dragon	$34
Robin Hood	$34
Rocketeer	$32
Search for the King	$24
Secrt Monky Islnd 1	$23
Secrt Monky Islnd 2	$38
Sex Olympics	$24
Sex Vixens from Space	$12
Sierra Adventure Bundle	$39
Shogun	$12
Sinbad	$12
Snoopy	$ 9
Space Quest 1	$34
Space Quest 2	$28
Space Quest 3 or 4	$34
Space Quest 5	$32
Space Quest Bundle	$39
Spellcasting 101	$19
Spellcasting 201	$38
Startrek 5	$12
Startrek 25th Aniversry	$36
Time Quest	$19
Train	$ 6
Uninvited	$ 9
Universe 1 -3 Ea	$34
War in Middle Earth	$15
Where Amrcas Pst CSD	$37
Where Europe CSD	$30
Where USA CSD	$30
Where World CSD	$27
Where World CSD Dlx	$49



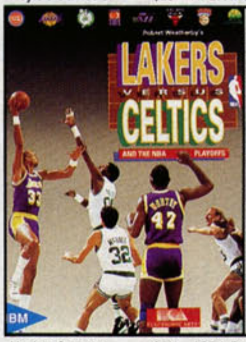
'FEMME FATALE' is a digital jigsaw puzzle for adults. The full screen VGA images may be scrambled into a varying number of pieces from 25 to 100. Numerous help features: save & reload multiple games, cancel & undo moves. IBM version includes 16 ravishing girls with optional data disks available. **$26**

IBM TRADITIONAL

3D Pool	$12
3 in 1 Players Pack	$37
Amarillo Slim Poker	$12
Backgammon WIN	$19
Battle Chess 1	$29
Battle Chess 2	$29
Battle Chess WIN	$29
Blackjack DOS/WIN	$19
Bridge 6.0	$28
Casinos of the World	$29
Ceasar's Palace	$15
Centerfold Squares	$21
Check Mate DOS/WIN	$36
Chessmaster 3000	$32
Chessmaster 3000 WIN	$38
Chess Net	$34
Chess X Collossus	$19
Clue Master Detective	$15
Cribbage King/Gin King	$19
Crossword Magic	$32
Dealers Choice Poker	$32
Dr Thorp's Blackjack	$32
Ewd O'Thorpe Blackjack	$19
Electric Jigsaw	$12
Faces: Tetris 3	$25
Femmes Fatale	$26
Femme Fatale DD 1-3	$18
Games People Play	$27
GO Master 5 Dlx	$109
GO Master 5 Dlx WIN	$109
GO Joseki Genius	$39
GO Junior	$19
GO Master	$34
GO Master 5 DOS/WIN	$39
GO Master 5 Toolkit	$39
GO Scribbler	$39
GO Tactical Wizard	$39
Grand Slam Bridge	$22
Hoyle's Games 1 or 2	$21
Hoyle's Games 3	$29
Hoyle's Games 4	$29
Ishido	$34
Jeopardy 1 or 2	$10
Jigsaw Pinups	$24
Jones in the Fast Lane	$24
Living Jigsaws	$12
Lexicross	$24
Monopoly	$24
Omar Sharif on Bridge	$37
Penthouse Jigsaw	$24
Pictionary	$24
Pinball WIN	$29
Planet of Lust	$24
Price is Right	$15
Prime Time Hits 1 or 2	$25
Rack'em	$12
Risk	$24
Risk WIN	$29
Sargon 4 or 5	$34
Scrabble	$24
Scrabble Deluxe	$34
Shanghai 2	$24
Shogi Master	$34
Solitaire Royale	$19
Solitaires Journey	$36
Sorry	$15
Spot	$15
Stratego	$31
Strip Poker 3	$31
Strip Poker Data 1-5 Ea	$19
Super Jeopardy	$27
Super Tetris	$32
Tetris	$25
Trivial Pursuit	$26

IBM ADVENTURE

Where Time CSD	$30
Wierd Dreams	$12
Wonderland	$19
Zak McKracken w/HB	$18
Zeliards	$21
Zombie	$12



'LAKERS VS CELTICS' brings all the excitement of the NBA playoffs to your computer. Pick your favorite team and enter the first round. You control all the shots, passes, defensive plays, and coaching moves. Full court 5 on 5 action for 1 or 2 players. Includes East and West All Star teams. **$19**

IBM TRADITIONAL

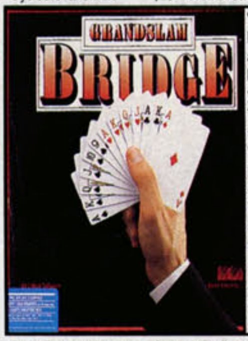
Trump Castle 2	$29
Vegas Entrtmnt Pk WIN	$20
Video Poker by Masque	$19
Video Poker DOS/WIN	$34
Welltris	$24
Wheel of Fortune 1-3 Ea	$10
Wheel of Fortune Gold	$15
Wordtris	$29
Wrld Chmp Backgamn	$24
Wrld Chmp Cribbage	$24



'ADLIB GOLD 1000' from **ADLIB INC** is a high quality **stereo** sound card. It complies with Multimedia PC sound adapter standards. Features: 16 bit stereo DAC providing 96db of dynamic range, programmable audio mixer, 20 stereo channels, MIDI input and output, sampling rates of up to 44.1 KHz, stereo input jack, and game port. **$179**

IBM SPORTS

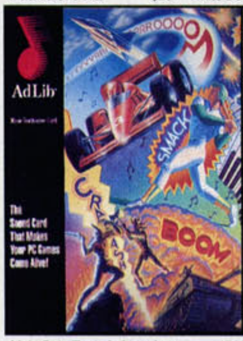
4D Boxing	$17
4th & Inches	$ 9
1992 Winter Olympics	$32
ABC Boxing	$32
ABC Mon Night	$34
All American College Fb	$36
All Star Sports Pak	$34
APBA Baseball	$28
APBA Encyclopedia	$34
APBA General Manager	$29
APBA Micro Manager	$32
APBA Stat Master	$29
APBA Wizard	$29
APBA 1908 - 91 Ea	$21
APBA Basketball	$28
APBA Bowling	$19
APBA Football	$49
Basketball Challenge	$28
B ball Ch. 1987 - 88 Ea	$13
B ball Ch. 1989 - 90 Ea	$17
Bo Jackson Baseball	$32
Blades of Steel	$26
Cycles Grand Prix	$28
Daily Double Horse	$19
Days of Thunder	$24
Dirk's Baseball Encyclpd	$19
Fast Break	$ 9
Games Winter Chllng	$34
GFL Champ Football	$ 9
Grand Prix Circuit	$17
Greens	$34
Greg Norman Shark Att	$25
Gretsky Hockey 2	$34
Gretsky League	$26



'GRAND SLAM BRIDGE' looks and plays like real bridge. It allows you to play solitaire, practice communication skills with a partner, or play with 3 humans and a computer fourth. You choose between weak 2 bids, 4 or 5 card majors, and more. High computer intelligence with 3 levels of play. **$22**

IBM SPORTS

Hardball 2	$28
Hardball 3	$34
Hole in One Mini Golf	$12
Hole in One Course Disk	$ 9
Indianapolis 500	$17
International Sports Ch	$29
Joe Montana Football	$31
John Elway's QB	$ 6
King's Beach Volleyball	$15
Lakers v Celtics	$19
LH 3 in 1 Football	$30
LH Boxing	$30
LH College Basketball	$30
LH Full Count Baseball	$30
LH Hockey	$30
LH Pro Basketball	$30
LH Team Disks	$15
LH League Leaders	$15
LH Utility Disks	$15
Links Golf	$37
Links Golf WIN	$39
Links Course 1 -6 Ea	$17
Low Blow	$12
Madden Football	$21
Madden TD 89 & 90	$18
Madden Football 2	$32
Magic Johnson Fst Brk	$ 6
Mario Andretti Racing	$17
ML Basbll Mngr's Chllng	$19
ML World Series Disks	$17
ML TD 1982 - 1990 Ea	$17
ML All Stars	$17
ML Franchise Disks Ea	$20
ML Box Score Stats	$20
ML GM Disk 3	$25
ML Roster Security	$20
ML Basketball	$28
ML Personal Pro Golf	$28
ML Football Deluxe	$39
ML Ftball Team Disks	$17
Michael Jordan Flt Sim	$44
Mike Ditka Football	$32
Mini Putt	$ 9
NASCAR Challenge	$31
NFL Challenge	$60
NFL 1984 - 1987 Ea	$15
NFL 1988 - 1991 Ea	$22
NFL Preseason Disk	$22
NFL All Star Teams	$22
NFL College Alumni	$22
NFL College Teams	$19
NFL Dream Teams	$20
NFL Greatest Teams	$22
NFL Roster Editor	$20
NFL Situation Editor	$20
NFL Football	$31
NFLP roleague Football	$24
Nicklaus Signature Edit	$39
Nicklaus SE Clip Art	$24
Nicklaus Greatest 18	$27
Nicklaus Unlimited Golf	$29
NG Clip Art	$17
NG Course 2	$ 6



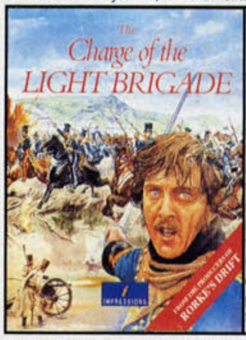
The **'ADLIB'** music synthesizer card by **ADLIB INC** adds sound capability to hundreds of existing PC games. Using its 11 different FM synthesized voices, it can reproduce almost any sound. The standard audio jack allows you to plug in any pair of headphones, boombox, or bookshelf speaker. **$59**

IBM STRATEGY

A Train	$42
Ancient Art War	$29
Ancient Art War at Sea	$29
Ancient Art War in Sky	$34
Armada 2525	$32
Bandit Kings of China	$37
Battle Isle	$32
Big Business	$32
Breach 2 Enhanced	$19
Breach 2 Scenario Disk	$15

IBM AMIGA MACINTOSH GAMES AND HINT BOOKS FOR LESS

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- Omni Play Basketball $34
- Over the Net Volleyball $24
- Pete Rose Baseball $ 9
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- PGA Tour Golf WIN $32
- PGA Tour Golf Disk 1 $17
- PGA Tour Golf Ltd Edt $45
- Playmaker Football $29
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- Pro Tennis Tour 2 $32
- Road to the Final Four $37
- Reel Fish'n $12
- Serve & Volley $12
- Skate or Die $15
- Ski or Die $16
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- Team Suzuki $15
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- TKO Boxing $ 6
- Tom Landry Football $29
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- T LaR Fantasy Managr $15
- T LaRussa Stadiums $15
- T LaR Teams1901-68 $15
- Weaver Baseball 1.5 $19
- Weaver Baseball 2.0 $32
- Weaver 1988 - 1989 Ea $16
- Weaver Commisnr 2.0 $21
- Weaver 2.0 1990 Teams $16
- Weaver 2.0 Comm Edt $56
- World Circuit $34
- World Class Soccer $28

HINT BOOKS
- 688 Attack Sub $10
- Advnturs Willy Beamish $10
- Altered Destiny $10
- Bard's Tale 1 - 3 Ea $10
- Buck Rogers 1 or 2 $10
- Castle of Dr Brain $10
- Champions of Krynn $10
- Civilization $16
- Code Name Iceman $10
- Colonel Bequest 1 or 2 $10
- Conquests of Camelot $10
- Conquests of Longbow $10
- Curse of Azure Bonds $10
- Death Knights of Krynn $10
- Dragons of Flame $10
- Dragon Wars $10



- Drakkhen $10
- Elvira 1 or 2 $10
- Eye of Beholder 1 $10
- Eye of Beholder 2 $12
- Fountain of Dreams $10
- Free DC $10
- Gateway Savage Frntr $10
- Hard Nova $10
- Harpoon Battlebook $19
- Heart of China $10
- Hero's Quest 1 - 3 Ea $10

HINT BOOKS
- Immortal $10
- Indy Jones Lst Crsade $10
- Indy Jones Fate Atlantis $10
- King's Quest 1 - 5 Ea $10
- Leisr Suit Larry 1 - 5 Ea $10
- Loom $10
- Lord of the Rings 1 or 2 $10
- Lost in LA $10
- Magic Candle 1 or 2 $10
- Manhunter NY or SF $10

'CHARGE OF THE LIGHT BRIGADE' recreates the battle of Balaclava during the Crimean War. Defend using the smaller British, French, and Turkish Forces or play the attacking Russians. Features animated figures, individual or group commands, two player option and an improved mouse interface. **$34**

- Maniac Mansion $10
- Martian Dreams $13
- Matrix Cubed $10
- Might & Magic 1 or 2 $10
- Might & Magic 3 $10
- Planet's Edge $10
- Police Quest 1 - 3 Ea $10
- Pool of Darkness $12
- Pool of Radiance $10
- Populous 1&2 Offici Str $16
- Power Monger $10
- Power Mngr Strategy Bk $19



'NEMESIS GO VER 5 DELUXE' is the ultimate computer GO program. With the simplicity of checkers and the complexity of chess, GO is a serious strategy game. Includes: GOMASTER-a basic GO player and tutor, Joseki Genius adds complex corner openings, Tactical Wizard & Scribbler. **$109**

- Quest for Clues 2, 3or4 $21
- Quest for Glory 1-3 Ea $10
- Railroad Tycoon $10
- Rise of the Dragon $10
- Run 5 Issue 1 - 20 Ea $ 6
- Savage Empire $10
- Search for the King $10
- Secret Mnky Islnd 1or 2 $10
- Secret of Silver Blades $10
- Shadow Sorcerer $10
- Simcity/Simearth $20
- Simearth $19

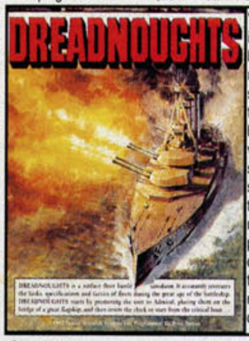
'FORT APACHE' lets you take charge of a detachment of cavalry troopers in the wild west. You are responsible for training them and bringing their combat abilities up to par. Features individual or group control, choice of weapons, a wide variety of missions, detailed troop stats, a large play area, & promotions. **$34**

- Space Quest 1 - 4 Ea $10
- Starflight 1 $10
- Starflight 2 $10
- Strategy Plus 3 -11 Ea $ 8
- Strategy Plus 12-18 $ 5
- Treasures Savage Frntr $10
- Tunnels & Trolls $16
- Ultima 4 - 7 Ea $10
- Wizardry 6 Cosmic Frg $12
- Wizardry 7 Crusade $12
- Yeager's Air Combat $19

IBM AD & D
- AD&D Bundle $38
- Champions of Krynn $20
- Curse of Azure Bonds $15
- Dark Queen of Krynn $32
- Death Knights of Krynn $20
- Dragon Strike $12
- Dragons of Flame $ 9
- Eye of the Beholder $32
- Eye of the Beholder 2 $38
- Gateway Savge Frontr $32
- Heroes of the Lance $12
- Pool of Darkness $38
- Pool of Radiance $15
- Secret of Silver Blades $15
- Shadow Sorcerer $32
- Tales Magic: Prophcy S $38
- Treasurs Savage Frontr $32
- War of the Lance $ 9

IBM ROLE PLAYING
- 2400 AD $28
- Autoduel $26
- Bad Blood $31
- Bard's Tale 1 $15
- Bard's Tale 2 $19
- Bard's Tale 3 $31
- Bard's Tale Cnstrctn St $19
- Battletech 1 $12
- Battletech 2 $31
- Blade Warrior $12
- Bloodwych $15
- Buck Rogers 1 $12
- Buck Rogers 2 $32
- Captain Blood $ 9
- Captive $30
- Celtic Legends $32
- Champions $37
- CHARACTR EDITORS $16
- Conan $29
- Corporation $29
- Cybergenic Ranger $32
- Cyber Space $29
- Darklands $39
- Drakkhen $37
- Dragon Wars $12
- Dusk of the Gods $38
- Earthling $32
- Elvira 1 Mistress Dark $34
- Elvira 2 Jaws Cerberus $39
- Escape from Hell $17
- Fire King $19
- Flames of Freedom $28
- Fountain of Dreams $15
- Hard Nova $17
- Hero's Quest 1 $21
- Hero's Quest 2 or 3 $34
- Hyperspeed $34
- Immortal $17
- Keys to Maramon $12
- King's Bounty $19
- Knights of Legend $30
- Legacy of the Necromncr $29
- Legend $31
- Lord of the Rings 1 $34
- Lord of the Rings 2 $37
- Loremaster $39
- Lure of the Temptress $37
- Magic Candle 1 $15
- Magic Candle 2 $37
- Matrix Cubed $32
- Mechwarrior $34
- Megatraveller 1 $16
- Megatraveller 2 $37
- Megatraveller 3 $39
- Midwinter 1 $12
- Midwinter 2 $28
- Might & Magic 1 or 2 $12
- Might & Magic 3 $37
- Might & Magic 4 $42
- Mines of Titan $12
- Murder $29
- Obitus $34

IBM ROLE PLAYING
- Paladin $28
- Paladin Scrolls Disk $16
- Pirates $ 9
- Planet's Edge $37
- Prophecy 1 $12
- Questron 2 $12
- Rings of Medusa $24
- Sea Rogue $39
- Sentinel Worlds $15
- Sleeping Gods Lie $29



- Sorcerian $34
- Space 1889 $16
- Space Inc $34
- Space Rogue $30
- Space Wrecked $19
- Spellbound $39
- Spirit of Excaliber $19
- Starflight 1 or 2 $19
- Sword of the Samurai $ 9
- Swrd Samrai & Pirates $16
- Tangled Tales $21
- Terran Envoy $12
- Third Courier $ 6
- Times of Lore $28
- Tunnels & Trolls $12
- Twilight 2000 $34
- Ultima Martian Dreams $37
- Ultima Savage Empire $34
- Ultima Trilogy $35
- Ultima Trilogy 2 $45
- Ultima 1-6 Bundle CD $59
- Ultima 4 or 5 $35
- Ultima 6 False Prophet $39
- Ultima 7 Black Gate $45
- Ultima Stygian Abyss $48
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'DREADNOUGHTS' is a surface fleet battle simulator. It recreates the look, specificatons, and tactics of fleet combat. Features 3D views, comprehensive manuals and sea charts, a potent English command parser, 1 or 2 player mode and computer controlled ships, gunnery and damage control. **$42**

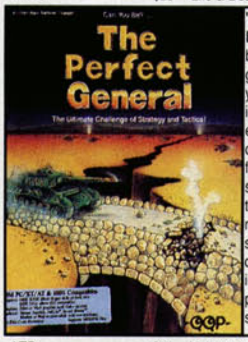
- Galaxian $ 6
- Gauntlet 1 or 2 $ 9
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- Grave Yardage $12
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The **'THUNDER BOARD'** is a sound board that is 100% compatible with Soundblaster and Adlib. It reproduces digitized sounds using an 8 bit DAC. Features include dynamic filtering, 11 Voice FM music synthesizer, sampling rate up to 22 KHz, microphone input, joystick port, and a 2 watt power amplifier. **$84**

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- Adlib Surround Sound $64
- Adlib Telephone Module $64
- Ad Lib Visual Composr $75
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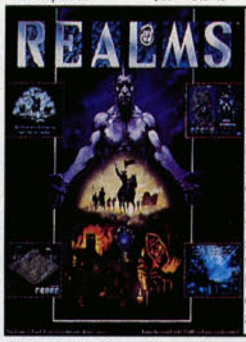
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- 688 Attack Sub $19
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- Volfied $24
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- Wild Wheels $32
- Wrath of the Demon $29
- Xenocide $19
- X Men 1 $ 9

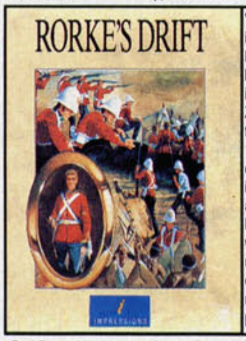
IBM SIMULATION
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'PERFECT GENERAL' is a turn based ground war game. Features 12 years of play testing, VGA maps, easy to use mouse or keyboard interface, 14 scenarios, strong artificial intelligence, hidden movement, line of sight option, in depth player ranking system, 2 player, with modem support. **$34**

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- Stunts $31

'REALMS' is a strategy game in a fantasy setting. You can control 128 armies, each a thousand strong with definable battle formations and consisting of 6 distinct humanoid races. March your troops over 125,000 square miles of fractally generated landscape to obtain countless followers and gold. **$29**

- Tank $37
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'RORKE'S DRIFT' is a detailed simulation of the battle between 137 British soldiers & 4000 Zulu warriors that took place Jan 22 1879. You control each man, standing, sitting, prone, aiming, firing, reloading, running or walking. With 3D map, animated combat & movement mouse support & VGA. **$34**

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How Do They Do That?

A Look At Genus GX Games*—Inside and Out*

by Mike Weksler





G*X Games* is a gamepack that includes: Apples & Oranges, Mind Plus, Space Miner, Puzzler and Black Jack. Additionally, the source code is included for each game, to teach the player/programmer game programming techniques and to help answer the question that is as old as the first computer game: "How do they do that?"

Apples & Oranges

In this *Othello* variant, players' pieces are either apples or oranges. In single-player mode, there are three levels of difficulty, the third of which can be quite challenging. A two-player (non-modem) mode is also included, with each player taking turns at the keyboard. The winner sees the board transform into his respective fruit. There is a hint mode that shows the player where to place a piece in tough situations as well. This program illustrates the techniques for board algorithms and efficient mouse decoding.

Hardware Requirements:
EGA Minimum, VGA
Sound Blaster (optional)
Mouse
Hard Disk Space required (including all games and C source code) 1.3MB
Price $59.95

Publisher:
Genus Microprogramming
2900 Wildcrest # 145
Houston TX 77042
Sales & info: (800) 227-0918
BBS: (713) 266-9362 BBS
CompuServe: GO GENUS

Genus libraries are required for recompiling:
GX Kernel, supports:
GXL library interfacing
Virtual buffer creation
Virtual buffer scaling
Multiple graphics mode support
Multiple toolkit usage

GX Graphics, supports:
Defining custom mouse cursors
Maintaining a cursor type based on cursor position
Decoding mouse clicks efficiently
Drawing to virtual buffers
Pop-up windows for help
Simultaneous keyboard and mouse interfacing
Button definition and handling
Drawing to virtual buffers
Pop-up windows (for help)

GX Effects, supports:
Background Music (PC speaker)
Sound Blaster (digitized sound file support)
Creating image masks
Transparent put

PCX Toolkit, supports:
Loading .PCX images from a .GXL library

The following compilers are supported:

C:
MS C 6.x
MS Quick C 2.x
Borland C 2.x
Lattice C 6.x
Basic:
MS BASIC 7.x
Pascal:
Borland Turbo Pascal 4.0/5.0/5.5/6.0

Mindplus

This is a one-player *Mastermind*-style color combination guessing game. The computer randomly selects a series of four to five colors from a palette of six to 10. The player must then guess the colors, each of which may be used more than once. It is possible to have the computer give the player hints about each guess. One must guess the color combination before running out of moves. At level one, the player has four pegs, six colors and fourteen moves. At level five, the player will have five pegs, ten colors and fifteen moves. If the player is a *Mastermind* fan, this game should prove entertaining. This program illustrates techniques for pop-up menus and board layouts.

Space Miner

This variation on a theme of *Galaga* is a one-player arcade game in which the "miner" maneuvers his/her ship (sprite) through space (a scrolling bitmap). The mission is to mine ore floating through enemy space while simultaneously trying to blast enemy ships, aliens, police patrols and the almost indestructible "mulcher," which is loaded with ore. One well-placed shot in the "mulcher" will disable its ship-munching jaws and leave its cargo floating in space for the player to pick up. One has a quota of ore to mine before being allowed to progress to the next level. There are three levels in all, with the final level being the hardest. **Genus** was thoughtful enough to leave the cheat keys in for those who will not be recompiling the programs (refer to the documentation). *Space Miner* is easily the most enjoyable game included and, after looking at the source code, the possibilities are endless: no enemy ships or mulchers, more lives and additional levels of complexity. **Genus** suggests making games harder with shorter-range torpedoes, smart bombs to blast all objects displayed on the screen, hyperspace with random reappearances (handy for those police patrols) and/or shields.

Additionally, more experienced programmers may create new levels, larger ore, bonus objects and digitize sound effects for their Sound Blaster cards. The speed of the game is machine-dependent, and can be adjusted with plus and minus keys, but the game timing is machine-independent — for example, police patrols come just as often and aliens fire at the same rate. The drawback to this game is the keyboard handler routine. It uses the keyboard buffer and makes the game somewhat difficult to control — a joystick routine is needed here.

This program illustrates the following game techniques: animation, continuous images, image movement, multiple image control, multiple video pages, timing and collision detection. Much can be learned from the source code of this one!

Puzzler

This game takes any .PCX image, either from a **Genus** .GXL library or by itself, and scrambles the image into a randomly placed matrix. The player clicks the left mouse button to select a piece and the right button to place it. This is interesting and fun, but it can be quite difficult — especially when two pieces look the same. Fortunately, the programmers at **Genus** have also in-

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cluded a peek key to toggle the puzzle image back and forth. The puzzle can be rescrambled.

This program illustrates the following techniques: scrambling an image, fast display, dynamic mouse hotspots, wide video support and EMS memory support.

Blackjack

Blackjack consists of a single deck version of the game. The player begins with $2,500 in his/her pocket and the dealer, $10,000. The game ends when either the dealer or player goes broke or the player leaves the table. Winning hands include a "blackjack" and a "five card charlie."



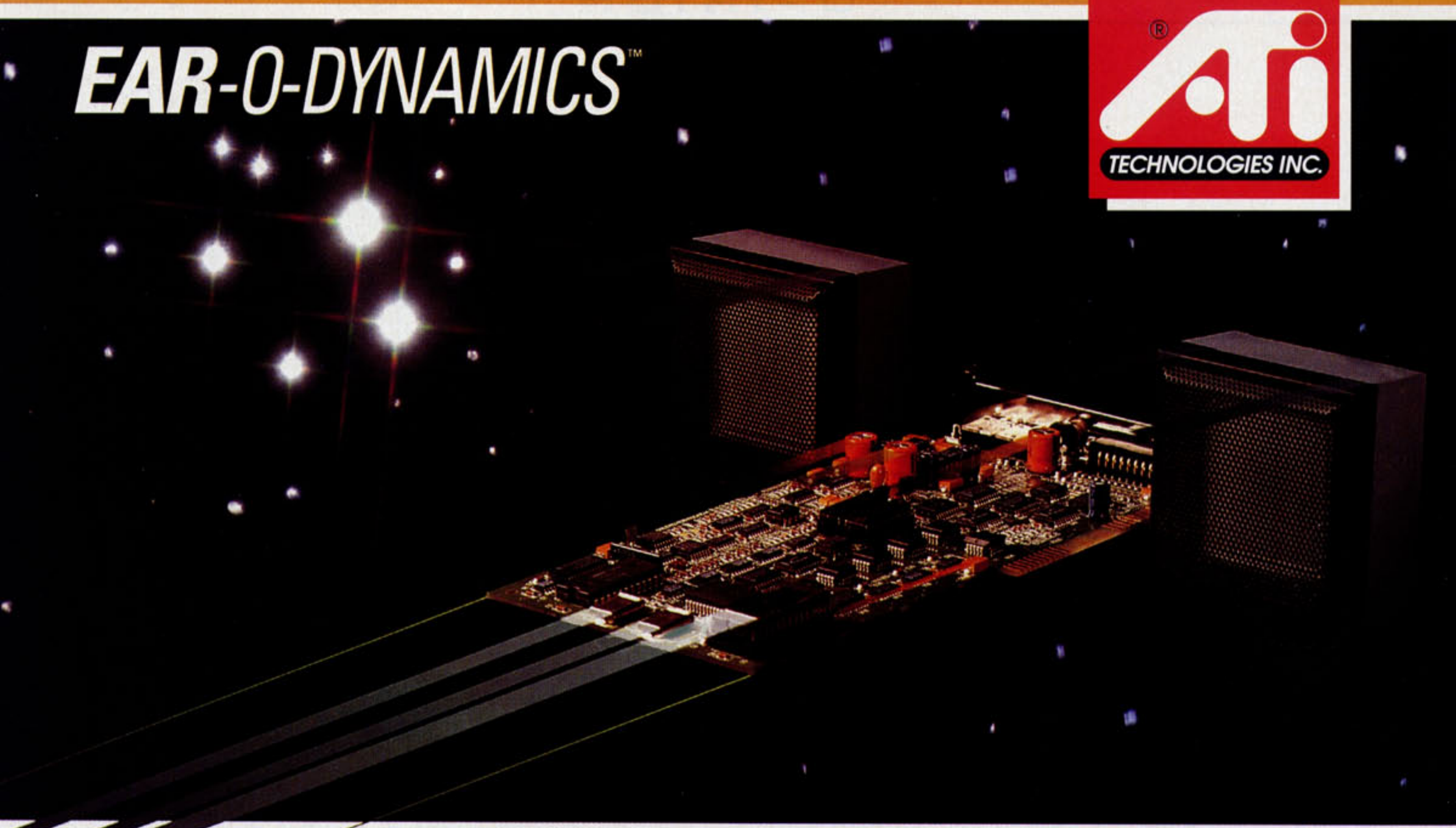
GX Games Compiled

GX Games is a product for both the programmer who has invested in one or more libraries of the GX Development series and wishes to learn some gaming techniques, and the gamer who has some programming experience and wants to know how games tick, as well as how to modify them. As such, it is a showcase for 2-D gaming possibilities and what can be accomplished with one's programming language compiler and Genus libraries.

The source code is well-written and extensively commented (including complete instructions on how to compile the source code with each of the supported compilers). The documentation, however, while comprehensive in explaining what techniques are used in a particular game, should have more in-depth discussion of game programming techniques themselves. 3-D programs, joystick routines and the addition of a *Lode Runner*-style game or a chess game would be most welcome additions to future versions of this product. As a game pack, *GX Games* is sufficiently entertaining, but its real value is as an educational tool for learning fundamental game programming techniques. **CGW**

```
/* Structures */
typedef struct point {
   int    x; /* X coordinate */
   int    y; /* Y coordinate */
} POINT;
typedef struct playerinfo {
   int    pot;     /* Pot total */
   int    bet;     /* Current bet */
   int    count; /* Current count of cards (0-5)*/
   int    total; /* Current total of cards (-21)*/
   POINT pos;     /* Current hand position       */
   int    hand[MAXDEAL];    /* Current hand */
```

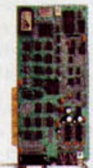
Sample of program listing for Blackjack game.



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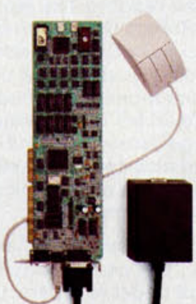
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Perfecting the PC

Scorpion's View

Mindcraft's
Magic Candle II: The Four and Forty

as told by Scorpia



Scorpia is an experienced and respected adventure game expert. CGW is pleased to be able to provide this forum for her distinctive and often controversial perspective.

Magic Candle II: The Four and Forty (MC II) is the follow-up to the original *Magic Candle* (*CGW*'s Role-Playing Game of the Year in 1989) and takes place ten years after the events of the previous game. During that time, the lands of Deruvia were thoroughly scoured of all traces of evil beings. With his homeland secured, King Rebnard then turned his attention to the east, to the continent of Gurtex, a place laboring under the heavy hand of the demon Zakhad.

Freeing an already subjugated land is not quite the same as kicking out unwanted invaders, and Rebnard begins to worry that he may have overreached himself this time. Fortunately, just when things seem darkest, along comes — you guessed it — Lukas, hero of Deruvia, ready for a new challenge.

Actually, the hero can be Lukas or someone else. You have the option of bringing your character (just Lukas) over from the original *Magic Candle* or starting up with one of five pre-created characters, two of which are female. The character types are ranger, bard, and fighter (duplicated for the women, with the exception of bard).

Regardless of type, all have spell-casting abilities, as well as fighting abilities. The main difference among the professions is in the starting values for various skills. The straight fighter, for instance, will have the best sword skill, while the ranger will be better with a bow. Read the character descriptions in the manual carefully to choose the type of character you want.

While your hero arrives at Oshcrun Island alone, he or she won't be lonely for long. Some familiar faces are around, like Sakar, Rimfiztrik, Eflun and Nehor, who are willing to join the quest. Other, new companions, such as Tuff the halfling and Sir Gustrom the knight, are also eager to come along with you.

In addition, there are the hirelings, NPCs who are in it strictly for the loot. On the other hand, they generally have superior skills and are often worth bringing into the party. For instance, Argus, available for hire at the Black Rooster in Telermain, is a darn good fighter. He's very handy to have along for a good stretch of the game.

The major difference between companions and hirelings is that hirelings never share any of their items. You can run a hireling in combat just as you would a companion, but they will never, *ever* trade away anything they have. So, you must be careful about what you give them. You won't get it back again later.

Unlike the previous game, you can't split the party into smaller, independent segments. What you *can* do that you couldn't before is drop people off for training or send them to specified locations. Then you can invite another character into the party to fill the gap. You can also dismiss characters outright, if you don't want them in the group any longer. Dismissed members will generally return to wherever you first picked them up, and can be invited back into the party if you want them again.

You can keep in touch with absent party members by using a new item called the mindstone, magical gems that allow you to talk, in a limited fashion, to anyone else who also has one. *[Ed: Sounds like someone has been reading* The Prophet of Lamath *by Robert Don Hughes.]* For example, if you have Sakar working away at the Metalsmith's, you can call on him to see how much money he's made so far. Then, you could tell him to either continue working, or go somewhere and wait for you. You can also contact dismissed members (if they have a stone), but you can't give them any orders.

Using the teleportal rooms has been improved. Now, you can use any code from any teleportal to get to a particular destination. Once you know the code for a location (for instance, Oshcrun), it will work from all teleportals to take you there.

Sleeping gods are back, but you may not care to waken all of them. Some are good or neutral, and will give your attributes a boost automatically when awakened. However, there are evil gods now, and they aren't quite so generous. These will demand a sacrifice of some kind in return for the benefits they confer. One, for instance, wants you to hand over Brennix first. Since Brennix is the best magic sword in the game, you may be reluctant to agree. Fortunately, it isn't necessary to wake up any of these evil gods; you can complete the game without obtaining whatever they have to give.

On the magic front, three new spellbooks have been added: Felmis, Vannex, and Emenad. Felmis was written by Rimfiztrik, and comes with him when he joins your party. Emenad you get free of charge from Ziyx (he also gives you a free Demaro when you first visit him). To obtain any of the others, you will have to find people with magic books for sale. Save up for these; they aren't cheap.

In the meantime, if you need spells, there are a couple of Wizard Lodges where you can *rent* spellbooks. You can memorize as many spells as you want, for a flat fee. This is more useful at the start, when you don't have many books. Later, it's better to have the books.

Speaking of dungeons... as before, once they are cleaned out, they stay that way. This applies both to ambushes in the corridors and nasty critters waiting in rooms. Therefore, you can do most dungeons in stages, coming out now and then to re-supply, without having to fight the same battles all over again when you return.

The surface of Gurtex is a dangerous place, with plenty of enemy patrols marching around. Camping out in these environs isn't recommended. Fortunately, there are Elden strongholds scattered across the continent. These buildings are absolutely secure, and the party can rest in them safely. Of course, you will have to find them before you can use them and they are not obvious until you're right next to one.

A new and welcome feature in the game is the note pad. This automatically records information you come across as you play, including: conversations, signs or scrolls you read and spontaneous comments made by party members. The notepads are saved to disk as plain ASCII files, so they can be printed off or reviewed with most any word processor. You can also control the level of detail recorded, ranging from absolutely everything to only the most important.

Mapping is a little easier. Your hero has a map that displays the immediate area, either outdoors or in towns. However, in dungeons, blue pearls are once again necessary to get a picture of the current level. Fortunately, you don't have to go looking for bowls; you can carry around a map flask in which the pearls are dissolved to provide the picture. You'll need a good supply of those pearls, though, as the levels are larger now and you cannot see the whole thing with one pearl as you could before.

Monsters are meaner and smarter than ever. The spell-casting critters have the same repertoire you do and they know how to use those spells effectively. Khazis, for instance, make themselves invisible at the first opportunity and then merrily cast Paralyze at you. If you're not careful, a game restore will follow in short order. So don't underestimate your opponents.

Gameplay in general is much the same as before, and the interface has not changed very much. **Mindcraft** intended to have mouse support for *MC II*, but numerous problems forced them to drop it from the initial release. Naturally, you still expect to have to fight your way through monsters in the dungeons. However, the number of ambushes in these places (usually several per level!), combined with the rooms you must pass through, turns fighting into a tedious chore.

While there is a Sense spell that warns of nearby ambushes, it does not always work properly. The party might walk all unknowing into a nest of concealed monsters and be in very bad shape very quickly. Always have Gonshi, Nift, Mirget and Luffin active, as well as a magic shield at full strength when going through dungeons.

The idea of using music as a weapon was a good one, but not well thought out. First you have to track down the individual songs that affect different monsters. Then you have to figure out which instruments to play them on, as each song only works when played on a particular instrument. Since bard skill is a big factor in the effectiveness of a song, trying to determine if poor results is related to low skill or wrong instrument makes the whole thing too complicated to bother with most of the time.

Assigning party members to various tasks has its own difficulties. Whenever characters are assigned, you must tell them where you want them to go if you aren't there to pick them up later. Unfortunately, the only places they can be sent to are the Elden strongholds (and only the ones you know about).

In Oshcrun, which has no monsters roaming the countryside, there's no problem. In Gurtex, however, this can be trouble. A lone character trying to make his way to a stronghold (or dismissed and trying to get back to wherever he was first picked up) might be captured by an enemy patrol and sent to a dungeon. Then you have to decide whether or not you want to go rescue him (and that not knowing in which jail he's stuck).

That makes training outside Oshcrun rather dangerous. If you aren't there when the training is completed, the character takes off immediately. This happened to me with Fiz. He was dropped off in Wanasol for library research training, while the rest of the group went around town doing other things. The party got back to the school about fifteen minutes after Fiz's training ended. By then, it was too late. Fiz was already heading off to a stronghold. With his stealth of zero, capture was all too likely, so a game restore was in order.

The notepad handling is somewhat crude. For one thing, you must save your current notepad independently of the regular saved game. It is all too easy to forget this, especially since no warning is given when you quit. This happened to me several times before I got into the habit of frequent note-saving, forcing a lot of back-tracking and re-doing of conversations.

Also, there is no way to review an old pad from within the game. You can only scroll

through the notes of the current session. Looking at anything prior to that requires exiting the game and pulling the old notes into a word processor. The best thing to do here is edit your old note pads and print them off between sessions so you have the material handy.

The ending is essentially non-violent (no big Foozle fight), but is handled in too low-key a manner. Instead of being spectacular, it is rather humdrum, taken care of more in words than action or visuals. After the fancy ceremonials of the original, this comes as a bit of a letdown.

Overall, *Magic Candle II* is an uneven sequel to the previous game. Many improvements have been made, and some good touches added. However, as noted, not all those improvements have been properly implemented and, with the excessive combat, makes the game irritating at times. More work is definitely needed in some areas. For all that, *The Magic Candle II* is still several cuts above the typical CRPG. If you enjoyed the first game, you are likely to have a (mostly) good time with this one, too. **csw**

Update Information

As I write this, the most current version of *MC II* is 1.3. This fixes most of the problems noted above. Some have no fixes as yet, because they occur randomly and Mindcraft has not been able to duplicate them. If you experience any of the following (except the random ones), you should send your disks to Mindcraft for the upgrade (though the problems all have work-arounds of one sort or another, it's best to play a clean version).

Ziyx and the scrolls: There are four special scrolls in the game. You're supposed to ask Ziyx about them and he tells you in which library you should do the necessary research. Unfortunately, the bug prevents Ziyx from recognizing the scrolls and he never tells you anything at all. Fortunately, there are only three libraries, so you can just try them one at a time until you find the right one for each scroll.

Using the scrolls: Anyone in the party was supposed to be able to use the scrolls at the right moments. However, it turns out that only the hero (your character) can use the scroll.

Kurgu and rubies: You practically get hit over the head with clues that Kurgu likes rubies. An unfortunate typo in the database, however, will keep him from accepting any as a bribe. The wrong item number was entered, so Kurgu will take a topaz instead.

Senvara's resting place: Senvara is a neutral goddess and worth waking up. However, the directions to her abode are given wrong. She is SE of Pentyne, not NE.

Barbarian camp: Before you enter the barbarian camp, be sure your party is in the top two rows of the formation. The exit square was incorrectly placed and, if you have anyone in the bottom row, your party will just walk right back out into the wilderness when they try to enter the camp.

Wearing food: This is one of the random problems, which seems to happen on the occasions when you sell food to make money. Your clothing disappears and is replaced by the food (the clothing is lost forever and you'll have to buy a new suit). You are actually wearing the food. Fortunately, you can take the food off and then sell it (or keep it and use it as food).

Wrong songs: Another random problem. Sometimes, when you learn a song, you get the wrong one in your repertoire. Usually, if you go back and ask about the song again, you'll get the correct one.

Keyboard lockups: Some people have reported occasional lockups of the keyboard, for no discernible reason. Your only recourse here is to reboot and restore to your most recent save, since the cause of the lockup (which does not happen to everyone) is unknown.

The Seven CDs of Gold

Notes From the Seventh International Conference and Exposition on Multimedia and CD-ROM

by Chris Lombardi



Sony announces its newest CD-ROM platform, the portable CD-ROM XA player.

The metaphor and motif for this year's International Conference & Exposition on Multimedia and CD-ROM could not have been more appropriately chosen. Subtitled "Charting the Course" and abounding in 16th century artwork and symbols, it would have been impossible not to have drawn a comparison between the state of the world as known by 16th century European explorers and the current state of the CD-ROM/multimedia industry. Like the ships of yore, the vessel of the CD-ROM industry, bearing the shining figurehead of interactivity, has set out with vague, though hopeful, notions of what lies ahead. Like explorers of old, these new explorers have the backing of the "powers that be" in huge amounts of R&D dollars. And, just as the European hope was to find a short route to the riches of Asia, so the attendees of this conference hold to the dream of riches that lay on some uncertain shore. After seven years of searching and no land in sight, one might ask whether the treasure of Multimedia for the Masses is, like Coronado's Cities of Gold, a product of an eager imagination.

After seven years of conferences, research and hype, this conference found multimedia developers asking the same questions. The most popular issue was that of platforms and standardization. With nine major platforms (30 in total, according to one estimate), one must ask whether a single platform will rise to prominence and gain consumer backing. Ironically, every hardware manufacturer that spoke at the conference called for standardization among multimedia hardware while, at the same time, promoting their specific machine. Regardless of the confusion over standards and platforms, the general consensus seemed to be that *no* current platform is capable of competing with current media forms for the attention of the mass market.

"Oh, No! More Platforms!"

Dr. Toshi Doi, Senior General Manager of the **Sony Corporation**, was one of many such hardware manufacturers to call for an industry standard. In a general session on platforms, Dr. Doi claimed that the industry must arrive at a CD-ROM standard by 1995, else the industry would fall into disarray prompted by internecine warring among "company egos."

In the same breath, Dr. Doi announced another independent CD-ROM platform to be added to **Sony**'s repertoire. The *CD-ROM XA Player*, a portable DOS-based machine, boasts 640K of RAM and a 320 x 200 256-color display. With a tiny keyboard and cursor pad mounted on a 7" x 6" x 2" console, the unit will support full multimedia applications.

Sony was also showing a number of software titles for their *Data DiscMan* unit. The "Electronic Book Player" uses 8cm compact disks to display up to 200MB of text and sound data. Among the 23 reference products already available, including the King James Bible, dictionaries, travel guides and such, was their first entertainment product, *Adventure 101 — Introduction to Tourist Traps, Dwarfs, and Chivalry*. *Adventure 101*, developed by **Tsunami** (the new company founded by **Sierra** alumni) is a "Choose-Your-Own-Adventure" type of book in which the reader makes pivotal decisions influencing the plot line and ultimate story outcome.

Hollywood in Multimedia: A Title Role?

Another hot topic in multimedia circles has been the question of Hollywood's place in multimedia entertainment. This issue was taken up at a "Computer and

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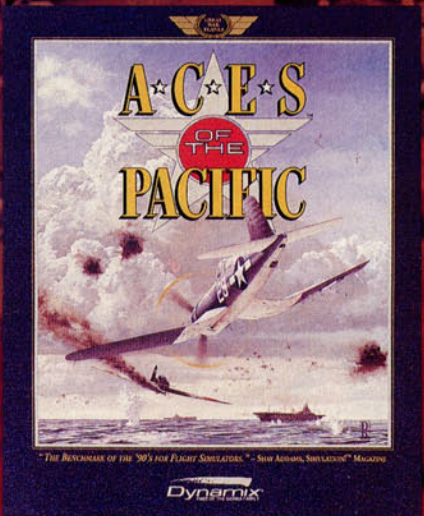
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"Aces of the Pacific is to Red Baron what the Corsair was to the Fokker Tri-Plane" Computer Gaming World.

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Home Entertainment" round table moderated by Peter Bart, editor of the Hollywood trade rag (or is that "trade bible?") *Variety*. Mr. Bart's opening remarks pointed the discussion toward the question of whether Hollywood was going to be the creative motivation behind the development of CD-ROM entertainment.

Panelist Geoffrey Holmes of **Time Warner** felt strongly that Hollywood would *not* make the transition to the new media, citing resistance to change on the part of Hollywood creators and the prevailing attitude toward technology as primary road blocks. According to Holmes, the question Hollywood typically asks is "How can I use this new technology to do old things faster and cheaper?" Obviously, such is precisely the wrong type of question to ask of a new technology begging for a new art form.

Mr. Holmes felt that the new developers of multimedia will need to be willing to get their hands dirty with the technology, a fact that will keep Hollywood types, who are used to having a "well developed user interface between their creative efforts and the underlying technology," away from this new field. He sees a new, younger creative class of individuals, people without a history in passive, linear, context-based art forms, emerging over the next ten years to drive the development of the New Media.



*Senator Inouye explains the context of the Founding Fathers' reference to "Natural Law" in **IBM**'s* Illuminated Books.

Another panelist, Jim Monaco, was of a similar sentiment regarding Hollywood's place in multimedia. He also expressed doubts about the prevailing view of the ultimate mass market multimedia box, the "Ubiquitous Box," as an interactive device with a single input button allowing users simple, binary choices. He sees the ultimate platform as an open-ended device like the home computer and not as a no-brain consumer electronics device. He finds the value of multimedia in providing people with tools for creating their own multimedia experiences.

Finally, David Londoner of **Wertheim Schroder & Co.**, a Hollywood financial analyst, made the nay-saying of a Hollywood-led multimedia industry unanimous. He sees very little consumer interest and investor value in the "Choose-Your-Own-Ending" sort of movies, citing that people are too entrenched in the passive mode of movie watching. He sees the part of interactivity being played through cable television in the form of interactive home shopping networks, game shows, polling and programming. Rather than entertainment, Londoner sees the future of multimedia in education, "video games," and in the archival of reference information.

Goodbye Chalkboard, Hello Motherboard

Without question, the most exciting area of multimedia development is in the realm of education. Not only are reference materials and hypertext education titles being produced in waves, but some of the best thinking about exactly what can be done in the interactive environment is being done by so-called "education people." These developers are moving beyond the excitement over the possibilities of heaping huge amounts of data dressing in stunning graphics, sound and video on a child, and asking fundamental questions about the interactive experience and how best to construct interactive environments. The goal is to create software that will not only turn children into *Jeopardy!* champions, but also teach them to *think*, both linearly and associationally.

By far, the most interesting educational project demonstrated at the show was the *Illuminated Book and Manuscripts* project. Sponsored by **IBM** and developed by **AND Communications** of Hollywood, CA, this project takes several classic literary works, *Ulysses*, *Letter From A Birmingham Jail*, *Hamlet*, etc, and wraps them in a rich hypermedia environment. Just as the original "Illuminated Books" of the pre-Gutenburg era added to the experience of reading classic literature by the inclusion of another medium, namely pictures, so these Illuminated Books enhance the reading experience through pictures, as well as full-motion video and CD-quality sound. More impressive than the video excerpts from *Hamlet* or the impassioned readings of Martin Luther King were the analytical tools provided in the environment. Pressing one "button" highlights the more difficult words in a passage, allowing the user to call up definitions of those words with one click. Pressing another button highlights the material which requires a certain amount of cultural literacy for a full understanding. With a mouse click, one could then draw up historical or allusary information to fill in the background context of a phrase. Yet another button highlights "items of issue," sections of the works that might be controversial. Clicking these "hot spots" provides video segments of commentators offering several different perspectives on the issue in question. Add to this a very simple authoring environment allowing students and teachers to construct their own multimedia presentations and you have a very promising, powerful product.



Using Illuminated Books' *"Expanded Theme" feature, students can explore the cultural milieu that provides a book with its context.*

Another new group of edutainment titles on show was the Knowledge Adventure group of products. The three titles in the series (*Knowledge Adventure*, *Sports Adventure* and *Science Adventure*) all provide highly associative hypermedia environments for children (and adults) to explore. *Knowledge Adventure* allows its users to traipse through the scope of human ideas by referring to geographic or historical points and then sampling the art, architecture, literature, entertainment, geography, music and science of that particular place or time. Likewise, the sports program and the science program (narrated by the late Dr. Isaac Asimov) explore their topics through associational historical and geographic links. The *Knowledge Adventure* line comes on high-density floppies — no CD-ROM is required.

Of related interest, **Sanctuary Woods**, a British Columbia-based producer of multimedia titles, announced that Shelley Duvall, actress and producer of **HBO**'s *Faery Tale Theatre* series, would join their group and put her storytelling expertise to the task of developing children's multimedia titles.

What's Entertainment?

The session entitled "Success Stories from Entertainment and Games" was about the only forum in which voices from game companies could be heard. **Lucasfilm**, **Tiger Media** and **Reactor** each showed their CD-ROM titles and sang the woes of working with a brand new technology.

Lucasfilm showed off their *Secret of Monkey Island* and *Loom* CD-ROM projects in progress. These titles, already "old news" among computer gamers, are being spruced up with speech and sound and thrown onto optical disks. Those who have been following CD-ROM support recognize this as an industry trend. Many companies are porting old products to CDs (many with very few "multimedia enhancements") and charging exorbitant prices for them. It seems these are "success stories" only if they take advantage of CD-ROM owners who are parched for software to justify their hardware purchase. These companies do not yet want to invest the money and take the risk to produce a hot CD-ROM title. Yet it seems they can't avoid losing money by releasing titles most gamers have already played.

The real CD-ROM success stories are found with **ICOM Simulations**' *Sherlock Holmes, Consulting Detective*, an original CD-ROM product with 90 minutes of full-motion (12-15 fps) video, and **Reactor**'s *Spaceship Warlock*, an adventure for multimedia Macintoshes; both original titles were designed around the new capabilities provided by CD-ROM technology.

In other entertainment news, **Philips Interactive**, developers of the CD-I platform, is releasing a title of interest. *CGW* was given a preview of their *Lords of the Rising Sun* project, which features full-motion video sequences with some of the more convincing original acting we have yet seen. The strategy and action elements of the game will be very similar to those in the original home computer product.

Land Ho!

The general tone of the conference indicated that mass market-oriented, optical-based, interactive entertainment is not going to happen any time soon. Yet, this is no reason for technophiles to despair. There are many companies committed to multimedia for the education and entertainment niche markets. In the months to come, MS-DOS- or Windows-based CD-ROM owners can expect more "multimedia enhancements" to DOS-based entertainment titles and even a few original titles from the likes of **ICOM** and **Tiger Media**. One can certainly expect more references, collections and education titles than one could hope to own. And, as the consumer base for DOS-based multimedia increases, it seems creators will be able to take more risks with their R&D money and try new possibilities with the new technology. It appears certain that CD-ROM will slowly become the standard for our little, though lively, industry and hobby, despite its failure to thrive in the current mass market. **cgw**

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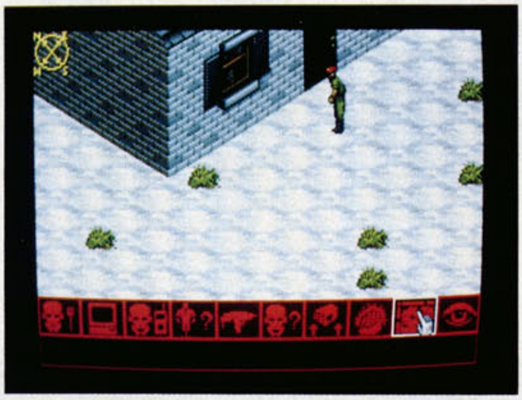
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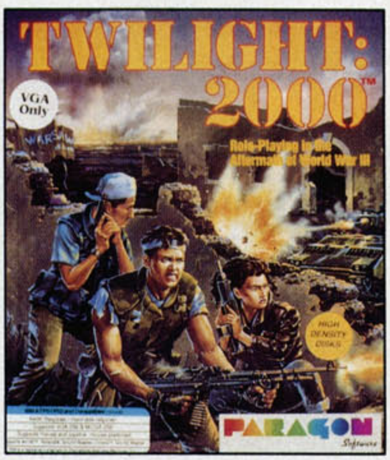
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The Sun Sets in the East

Paragon Software's Twilight: 2000

by J. D. Lambright



TITLE:	Twilight: 2000
SYSTEM:	IBM
PRICE:	$59.95
PROTECTION:	Document Look-up
DESIGNERS:	Marc Miller, Mark Seremet, Paul Conklin
PUBLISHER:	Paragon Software Greensburg, PA

Icicles of sweat caressed his face as he woke with a start and pulled his mistress, an M60 light machinegun, to his chest. The dreams had come again, the psychadelic rainbow of bombs, destruction and death. He heard the banshee scream of the mortar and dived under his bunk just as the north wall performed a parlor trick, transforming brick to dust.

Such is the world of man-to-man combat in *Twilight 2000*, a post-holocaust nightmare, carefully crafted by **Paragon Software** from the people and paper game of the same name. The locale of the game is Poland in the year 2000. World War III had broken out in 1995, starting as a conflict between the Soviet Union and China. As the battles raged, the conflict went nuclear in 1997. By 2000, most of the authority and formal governments had ceased to exist. Cantonment systems had taken their place and military units practiced forced recruitment in order to keep up their strength. Neither politics nor national origin mattered, soldiers were drafted. In the game's context, the remnants of these different groups have banded together to face a new menace, Baron Czarny.

The game has two updates from the original version. These are available from **Paragon** by contacting their technical support group. The first update fixes many "bugs" that are typical of first versions. The second update, called "The Colonel," changes the entire graphic look of the game. The only drawback is the 512K *expanded* memory that it requires. The first update, however, does not require any expanded memory.

Strategic Briefing

As the leader of a band of warriors, the player commands a group of twenty characters in the course of achieving the game's ultimate goal: destroying Baron Czarny and liberating Poland. One may choose to use either the default group provided with the game or create one's own group via the character generation system, possibly the most outstanding system ever introduced in a computer game. In addition, each recruit may be saved and printed out on hard copy.

Recruiting a team member is simple and straightforward. One selects the name, gender, icon, country and language to be spoken by the character (and it's a good idea to cover all the major languages, if possible). Next, players can assign attributes randomly or by allocation. Standard attributes like strength, agility, constitution, charisma, intelligence and education must be assigned. Then background skills are given, realizing that these will affect the career choices open to the character. Finally, basic skills are assigned and secondary activities are generated. Finally, war breaks out and the recruit spends one term or more in the armed forces.

The player repeats this sequence until there are twenty members in the squad. When the player has finished generating characters, they can be assembled into a squad for use in playing the game.

Areas of Conflict

One thing to consider in the make-up of the team is that not all of the available skills are needed in *this* game, though they may be used in subsequent games. Skills such as bow hunting and swimming are definitely not needed to win the game, though the default characters have these skills. This reviewer found that making the leader strong (i.e. with as many skills as possible) is critical to success, since the leader will be involved with every mission. Squads use four team members per mission and other team members may be called up during the mission by using the walkie-talkie. In the case of an emergency activation, one member will have to be dismissed from the squad because four active members are the maximum allowable.

Important skills include: rifle, pistol, heavy weapons, medical, language, interrogation, gunsmith, tracked and wheeled vehicle, mechanic, foraging, hunting and fishing. Do not overlook the importance of initiative. In a battle of twenty-five against four, initiative often determines the outcome. Further, note that characters have a "load rating," representing the amount each character may carry. This may be avoided by standing above an inventory item (these look like a suitcase) and using the inventory icon to pick up the items on the ground and place them into the inven-

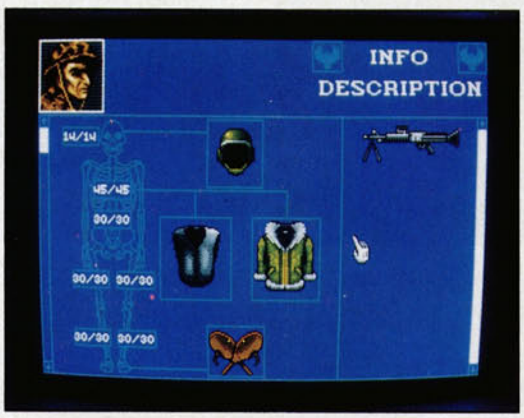
tory. This method will allow one's characters to carry up to 120 kilos over their load rating.

Players may also discover that speaking to NPCs can be difficult. One must be facing the NPC in an exact position for communication to be possible. Often, none of the squad members speak the language and time spent waiting for another team member to arrive is time wasted. It is a good idea to make note of the spoken language of each town, since they will usually be visited more than once.

Players should also consider the fact that the map is missing one town, Proszowice. It is located at the juncture of the mountain and road between Slominiki and Igolomia.

Attack!

The game encompasses one year of game time, broken into fifty-two weeks. One mission per week is normal, with later missions having two per week. The missions are three series of battle types. Series one encompasses eight missions in the "Acquire Phase." One starts out with an empty vehicle pool and must steal or retrieve vehicles. Smart players will have their characters carry tools for both wheeled and tracked vehicles during this phase, since their mechanics may be able to repair disabled vehicles for later use.



Combat, of course, is common during this phase. When marching from town to town, attacks occur by either equivalent or superior scout teams. Upon completing the mission and picking up the leftover weapons, however, it is possible to march from town to town and acquire as many weapons as one can carry. During these period, regular trips should be made back to the base to unload or get ammo.

Note that hidden supplies may be discovered during these missions by using the tactical mapper to see the supplies. They will be represented by brown dots on the screen.

During these missions, one is finding friends, weapons, vehicles, food and fuel. The most effective weapons are the M60 LMG and belt-fed grenade launchers (as opposed to the single-shot types). Exit the vehicle pool and place the character's weapons on the ground. Then reenter the base to select other weapons. Upon returning to the outside, one can use the inventory icon to pick up the weapons, allowing one to be prepared for almost anything.

Twilight 2000 does use a very simple method of play balancing during these missions. When travelling on foot, one will have battles with other squads on foot. When in a vehicle, other vehicles will attack. One can often avoid these random attacks, however, by making small moves of ten kilometers instead of rapid mobilizations from town to town.

The key to winning battles is primarily target discrimination. Naturally, an enemy with a 9mm pistol is not a threat compared to one with a grenade launcher or an AT-7 "Saxhorn." Further, it will often require the use of all available weapons to win the early battles, when the characters' skills are still low. Fortunately, skills will improve with use and one's gunsmith can improve rifles by using the basic tools when weapons and scopes are in inventory.

One important rule to be remembered is, "If a party member is in an untenable position, flee." This will regroup the squad at the leader's position. During this time, weapons may be reloaded all at once that would normally take a combat round to do the same thing. Save the game and then reenter interactive combat.

After a battle, one must rest in the tent to cure injuries. It may take more than one eight-hour period to do this, but it will save having to carry around medicine and a doctor to administer medical aid.

Repair

The next twenty-two missions constitute the "Powerbase Phase," in which one defends, helps, cures, discovers spies and rescues hostages in order to gain the loyalty of towns. Some missions consist of treating sick or injured people. The doctor will either use the doctor's bag or antibiotic to cure the townspeople. Note that there are never more than ten townspeople to cure.

Baron Czarny is not idle either. He is in the same stage of the campaign. So, failure to complete a mission in the allotted week will result in towns being lost to Baron Czarny.

Tanks come into play in this series and the M1A1 is the best choice for protection and firepower. Use the radar to track enemies targeted for destruction and remember that a tank is not destroyed until it starts smoking. Until that time, they are still viable. One's mechanic may repair and drive back the newly acquired tank on occasion and the townspeople regularly refuel one's vehicle upon completion of the mission. Also, some missions involve the rescuing of hostages. This requires one to travel to more than one town. Check fuel consumption and distance before setting out. Once out of fuel, one must hoof it.

Defense

The next twenty-odd missions constitute the "Defense Phase." Missions are randomly generated and some require two operations per week. The missions require the defense of acquired towns and unsuccessful missions will result in a town changing sides. These missions involve destroying as many as five tanks and twenty-five foot soldiers to rescue the town. Note that it is not *always* advisable to follow orders to the letter. Sometimes the best defense is a good offense.

The final mission involves the defense of one's home base of Krakow. This will occur on December 30, 2000 at 6AM. It involves two tanks and twenty-five foot soldiers. When completed, the game will end with the capture of Baron Czarny and a warning about the future.

Debriefing

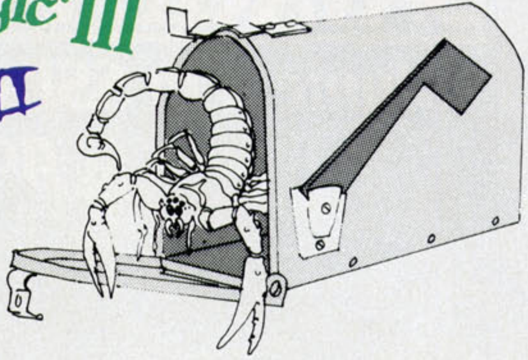
Twilight 2000 is an excellent premise on which to build future games. The character generation and the PAL role-playing systems could be used for any role-playing genre. Though the game itself can be very repetitious at times, it offers a lot to the consumer. It will *not*, for example, be completed in one weekend. Some battles have taken two or more hours in *real* time to play and were still lost! *Twilight 2000* successfully demonstrates that **Paragon Software** is listening to their customers and learning what role-playing is all about. RPGers who like plenty of combat should find *Twilight 2000* an excellent choice. **CGW**



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Elvira II
Wizardry
Ultima



Every other issue, Scorpia enters the mail room in the back of the Scorpion's Tale (that world-famous tavern of the mind) and answers readers' questions with specific *game hints. Readers who are offended by such assistance should avoid this location. In other words, turn the page now.*

Spring is here, and I really have to do something about clearing some space in this room. Of course, I've been saying that for a while, and the place just keeps getting more and more crowded. (I think it's got something to do with all those letters that keep coming in.) And with a bunch of new games just released, space is going to become a critical issue pretty soon. Urgg. Fred, I need a hand here. (Fred hands Scorp an "I Hate Housework" button and grins fiendishly. Thanks a lot, Fred.) Anyway, while I arrange for the forklifts, let's get to the good stuff (while there's still some room to maneuver in here).

Eye Of The Beholder: Some more hints toward those mysterious bonuses. On level 4, you need to be pushy. In fact, you may well find yourself going in circles, as it were. A good pull is also helpful. On level 5, look for the pantry. Too bad it's empty. Maybe you can do something about that (what do pantries usually contain?).

Eye Of The Beholder II: Lots of letters showing up now on this game. One part that people are having trouble with is on the "nightmare level," that Margoyle-infested section where you can't rest. There is a room with pressure plates and a sign that reads, "You must leave many things behind." That's a tricky one. You *do not* have to weight down every plate. Remember, X marks the spot. As for the moving pits that show up in some areas – sorry, you can't turn them off. Really. The only thing you can do is time your moves to get across when the pits are shut. Watch carefully!

LeChuck's Revenge: Secret of Monkey Island II: It sure would help to have some near-grog, wouldn't it? Too bad Kate isn't feeling generous. Since she won't volunteer any of the stuff, you have to do it the hard way (hard for *her*, that is — evil grin). Take a good look at those flyers she hands out, and think lard.

Ultima VI: In a previous Mail column, I mentioned at the end of a *U6* hint that "you only have 30 days to get everything done." Unfortunately, some people thought this meant you had 30 days to do the whole game (oops). My apologies to all who were misled by that one. Let me clear up the misunderstanding: it is only *after* you accept the Amulet of Submission from the Gargoyles that the 30-day time limit goes into effect. Before then, you have all the time you want to go running around in the game.

Might & Magic III: For those who missed my warning in a previous issue, be *extremely* careful of what you touch inside the pyramids. Some of those crystals cause *permanent* aging. This type of aging cannot be undone, because actual time in the game has passed. So keep an eye on your characters' ages whenever you touch anything. If your people are getting older, it's time to restore the game (unless, of course, you want to run around with a party of aged adventurers).

Bane Of The Cosmic Forge: Some folks are having a hard time figuring out the location of the pirate treasure. It isn't really too difficult. Shucks, it's almost as easy as rolling off a log. And we all know how pirates and Jolly Rogers go together. Just be sure to investigate very thoroughly under the Altar of Ramm (if you haven't been down there yet, worry about the pirate treasure later).

Spellcasting 201: Returning to those frat initiation days of yore (or yours), we have the problem of the showers at Barmaid U. It would be simple to fix the plumbing, if only Ernie's glasses didn't keep fogging up. Of course, he can't see a thing without 'em, so taking them off won't do. Bet you missed a spell somewhere. Bet that spell is all the way back at Sorcerer U. Where? Heh, I'm not gonna tell. (What's that you say? You haf vays of making me tock? Never!)

Elvira II: One obstacle that you may have trouble with is a succubus in a bedroom. For that, you need some protection (look over the spell list). You also need some intestinal fortitude. You'll still conk out, but at least you'll wake up again. Remember to search the room before you leave. Then, you can deal with the toothy one in the attic.

Willy Beamish: There are moments when being a kid again has its difficulties. For instance, there's a certain gang. Definitely, these people are not nice. You might long to pull out an Uzi to remove them from the scene permanently. However, Uzis (even in this day and age) are not standard equipment for nine-year-olds. Try a bomb instead. This may not be quite enough, though, so you may want to tell them to go soak their heads. Better yet, assist them. Then you should look *tout de suite* (French for "darn fast!") for some assistance of your own.

That's about it for this look in the mailbag. Remember, if you need help with an adventure game (please, *no* flight sim questions — I don't do those games!), you can reach me in the following ways:

On **Delphi**, visit the *GameSIG* (under the Groups and Clubs menu). On **GEnie**, stop by the *Games RoundTable* (type: Scorpia to reach the Games RT). By **US Mail** (enclose a self-addressed, stamped envelope if you live in the United States): Scorpia, P.O. Box 338, Gracie Station, New York, NY 10028.

Until next time, happy adventuring! **cgw**



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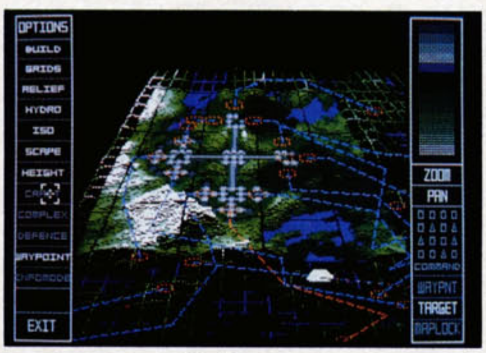
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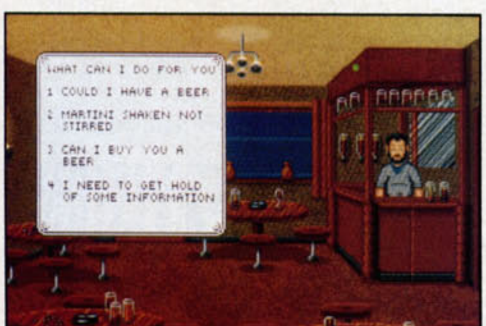
Over There

Binary Support

by Paul Rigby



Air Support



Crime City

Imagine **Psygnosis**' *Armour-Geddon*. Then think of a similar game with rather more depth and tactical opportunity. The second game would be **Psygnosis**' new venture, entitled *Air Support*. Set in the middle of the next century, *Air Support* initiates a campaign in which wars are fought via telecommunications, using computer control from remote bunkers. The player is put in control of an entire combat division, commanding fighters, tanks, amphibious units, artillery and support vehicles.

The entire conflict is viewed in close-up 3D with optional overhead maps. There is the opportunity, however, for one to occupy the participating vehicle on those critical missions on which one simply must take control. The specification looks impressive save for one important factor: the graphics are shown in wire-frame 3D (the same technology seen in the original *Starglider*). **Psygnosis** argues that the design decision to stay with wire-frame technology was to ease the pain on the Amiga's processor (the one and only release format at the moment). If an IBM conversion ever takes place, most observers would expect to see a 386 polygon-filled option. Release is expected as this issue goes to print.

Hill Street Blues, the license of which belongs to UK outfit **Krisilis**, has been the center of a "You show me yours and I'll show you mine" deal with American software house **Digitech**. The idea is that **Krisilis** would allow **Digitech** to publish *Hill Street Blues*, *Jahangir Khan's Squash* and *Laser Squad* in the USA and **Digitech** allow **Krisilis** to publish something called *Vikings Fjords of Conquest* plus two other unspecified games in the UK.

The first **Impressions** game release this month is *Air Bucks*, a game which allows the player to build a worldwide airline starting with a single Dakota and $100,000 in 1946. In this trading game, one can build up a fleet of aircraft, negotiate for landing rights at city airports, run scheduled services and charter flights carrying passengers and/or freight. Decisions include flight planning and aircraft procurement (new ones appear as technology allows), while players are being billed for: fuel, overhead, landing rights, stock exchange deals and so on. Reports and graphs aid planning and decision making.

Air Bucks includes a random map generator and 256 aircraft to control, plus their routes. Hmm, get the feeling this game should have been called "Airline Tycoon"? Release on Amiga, IBM and ST is scheduled for May (IBM: £34.99, Amiga/ST: £29.99).

Impressions' second game release of the month is an adventure game published on their new 'If...' label. Called *Crime City*, the player takes the role of an intrepid Sam Spade-type character in the search for the killer, motive, murder weapon and all that jazz. The game is very much mouse-oriented, with the main course of events cantering around a desk that contains a number of hot zones to transport the player to different modes. For example, the notebook offers a number of names, addresses and phone numbers while a map shows the whole city from which one can select locations to visit. Interaction is based on clicking on one question from a choice from six or seven in a similar way to the **Dynamix** adventure games. *Crime City* is out now for Amiga and ST.

Three new CDTV titles have just been released by **Microdeal**. *Voice Master* (£39.99) includes an interface and

microphone that plugs into the CDTV itself (the parallel port to be exact). The interface can only be used with other software, though, such as *Joky Karaoke*, *Voice FX* or *Asterix & Son*. *Voice FX* (£19.99) incorporates real-time voice changing software to use with *Voice Master*; eleven different effects are available including pitch bend, pitch down, echo, reverb, etc. Music CDs can also be played from the *Voice FX* software so one can sing along with a favorite music artist. *CD Remix 2* (£29.99) allows one to make a personal re-mix of any audio CD. The user can jump around the track, overlay any of the more than 600 sound effects, speech or drum beats that come with this package.

"Hurrah!" and "Lashings and lashings of ginger beer" and "Hurrah!" again and other spiffing phrases are part and parcel of Enid Blyton's *Famous Five* children's book series. Oh yes, that series of books are well remembered — having just about the whole series during this journalist's single-figure days.

Any road up, *The Famous Five — Five on Treasure Island* is a text/graphic adventure of the classic school from **Enigma Variations** that includes some intriguing character handling, using a system called Worldscape. The game begins when Julian, Dick and Anne visit their aunt and uncle. This is the very first adventure, so they had yet to meet George, the tomboy girl and her dog Timmy. From there they worm their way into treasure island, full of stereotyped villains and secret caves.

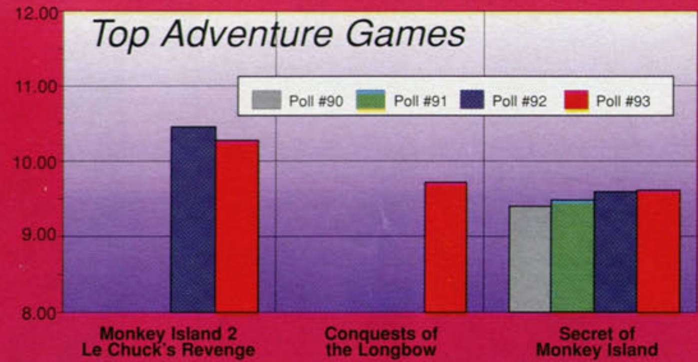
The game world is dynamic, which means that events move on while one waits. The player can TELL and SAY things as well as ASKing ABOUT things. Characters have their own special facets, so one can ask a character to perform an action. The player can also BECOME any of the Famous Five (except the dog). Each character has their own advantages: Julian is strong while George is the best swimmer. One can even split the five up to explore several directions at once. This is essential to solve some of the problems. The parser is up to modern standards with linked sentences using AND, THEN and commas. Prepositions can be used to alter the meaning of verbs and group commands such as ALL and EVERYTHING are also included. Out now on Amiga, ST and C64, this is adventure is a real blast from the past.

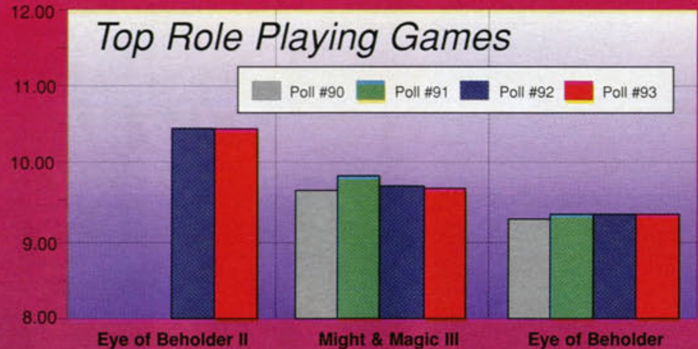
Incidentally, anyone who would like to contact me can do so on **Compuserve** (75300,1503) or by mail to 20 Malvern Road, Liverpool, England, L6 6BW. Please include three 'international reply coupons' if you would like a reply.

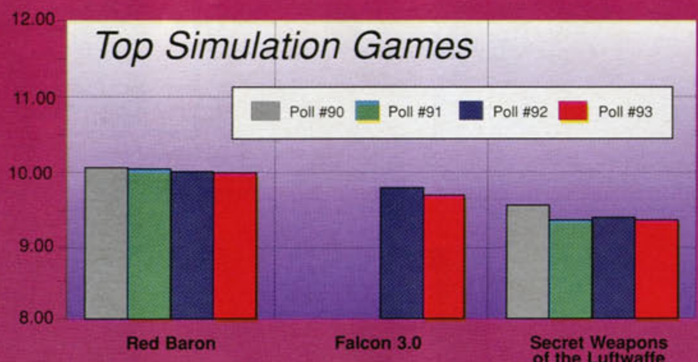
Note: The above games, and any of the other games mentioned in "Over There" in past issues, can be obtained from:
Computer Adventure World, 318 Kensington, Liverpool, England, L7 0EY. Telephone: 01144-51-263-6306.
Premier Mail Order, Trybridge Ltd., 8 Buckwins sq., Burnt Mills, Basildon, Essex, England, SS13 1BJ. Telephone: 01144-268-590-766; fax: 01144-268-590-076.
Software City, Unit 4, BDC, 21 Temple Street, Wolverhampton, WV2 4AN. Telephone: 01144 902 25304; 24-hour credit card hotline: 01144 902 25304.

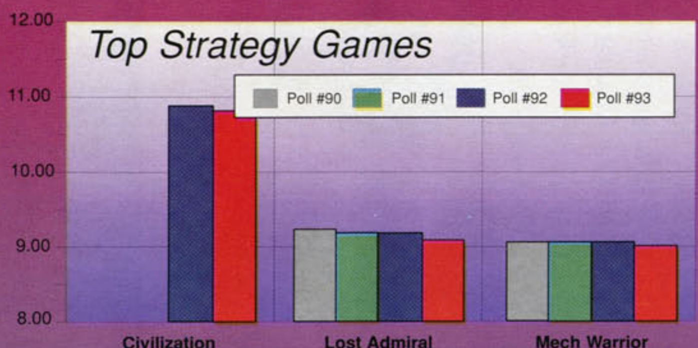
All of the above telephone numbers assume one can dial direct. If there is any trouble, contact the international operator for assistance. **cgw**


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Map showing extent of enemy radar coverage
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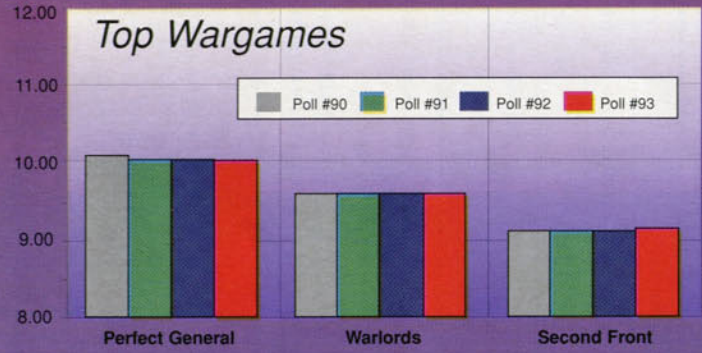


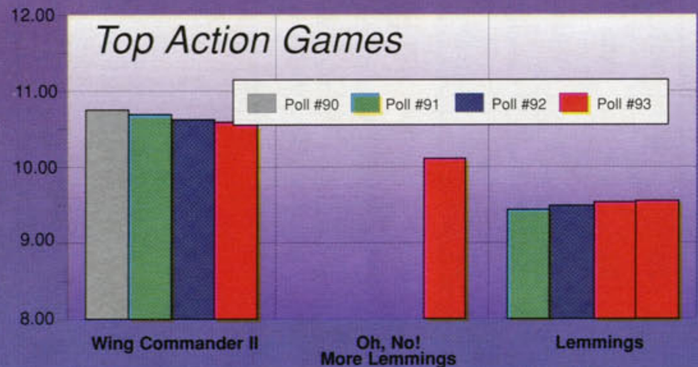




Top 100 Games

No.	Name	Source	Category	Rating
1	Civilization	Microprose	ST	10.84
2	Wing Commander II	Origin	AC	10.62
3	Eye of the Beholder II	SSI	RP	10.44
4	Monkey Island 2: Le Chuck's Revenge	Lucasfilm	AD	10.25
5	Oh, No! More Lemmings	Psygnosis	AC	10.15
6	The Perfect General	QQP	WG	10.01
7	Red Baron	Dynamix	SI	10.00
8	Links	Access	SP	9.76
9	Falcon 3.0	Spectrum Holobyte	SI	9.72
10	Conquests of the Longbow	Sierra	AD	9.71
11	Might & Magic III	New World Computing	RP	9.67
12	The Secret of Monkey Island	Lucasfilm	AD	9.62
13	Warlords	SSG	WG,ST	9.59
14	Lemmings	Psygnosis	AC	9.53
15	Secret Weapons of the Luftwaffe	Lucasfilm	SI	9.40
16	Eye of the Beholder	SSI	RP	9.32
17	Super Tetris	Spectrum Holobyte	AC,ST	9.26
18	King's Quest V	Sierra	AD	9.25
19	Wings	Cinemaware	AC	9.18
20	Second Front	SSI	WG	9.13
	Police Quest 3	Sierra	AD	9.13
22	Gunship 2000	Microprose	SI	9.12
23	Quest for Glory II	Sierra	AD,RP	9.11
	The Lost Admiral	QQP	ST	9.11
25	Silent Service II	Microprose	SI	9.08
	Western Front	SSI	WG	9.08
27	No Greater Glory	SSI	WG	9.07
28	Bane of the Cosmic Forge	Sir-Tech	RP	9.05
	Battlehawks 1942	Lucasfilm	AC,SI	9.05
30	Chuck Yeager's Air Combat	Electronic Arts	SI	9.04
	Red Storm Rising	Microprose	SI	9.04
32	Mech Warrior	Activision	ST,SI	9.02
33	Quest for Glory	Sierra	RP	9.00
	The Adventures of Willy Beamish	Dynamix	AD	9.00
	PGA Tour Golf	Electronic Arts	SP	9.00
36	Ultima V	Origin	RP	8.99
37	Space Quest IV	Sierra	AD	8.98
38	Space Quest III	Sierra	AD	8.97
	Sword of Aragon	SSI	WG,ST	8.97
	F-117A	Microprose	SI	8.97
41	Command HQ	Microplay	WG,ST	8.96
	Powermonger	Electronic Arts	ST	8.96
43	Wasteland	Electronic Arts	RP	8.95
44	Pools of Darkness	SSI	RP	8.94
45	Overrun	SSI	WG	8.93
46	Falcon	Spectrum Holobyte	SI	8.90
47	Jack Nicklaus Unlimited Golf	Accolade	ST	8.89
	Rise of the Dragon	Dynamix/Sierra	AD	8.89
	Martian Dreams	Origin	RP	8.89
50	NFL Challenge	XOR Corporation	ST	8.87







	Wayne Gretyzky Hockey II	Bethesda Softworks	SP	8.87
52	Romance of the 3 Kingdoms	Koei	ST,RP	8.86
53	Indianapolis 500	Electronic Arts	SP	8.85
54	Populous	Electronic Arts	ST	8.84
55	Elvira	Accolade	RP	8.82
	NFL Pro League Football	Micro Sports	SP	8.82
57	Might & Magic II	New World	RP	8.81
	Rules of Engagement	Mindcraft	ST	8.81
	Tracon	Wesson International	ST	8.81
60	The Magic Candle	Mindcraft	RP	8.80
	LHX Attack Chopper	Electronic Arts	AC	8.80
62	Gateway to the Savage Frontier	SSI	RP	8.79
63	Hoyle Book of Games, Vol. 3	Sierra	ST	8.78
64	Bard's Tale III	Electronic Arts	RP	8.77
65	Bandit Kings	Koei	ST,RP	8.75
	Heart of China	Dynamix	AD	8.75
	Martian Memorandum	Access	AD	8.75
	4-D Boxing	Electronic Arts	SP	8.75
69	Covert Action	Microprose	AC,AD	8.73
70	Battles of Napoleon	SSI	WG	8.72
	Battlechess	Interplay	ST	8.72
72	Breach 2	Omnitrend	ST,RP	8.71
	Starflight II	Electronic Arts	RP	8.71
74	Neuromancer	Interplay	AD	8.70
75	F-15 Strike Eagle II	Microprose	SI	8.69
76	Typhoon of Steel	SSI	WG	8.67
	Curse of the Azure Bonds	SSI	RP	8.67
78	Indiana Jones/Graphic Adv.	Lucasfilm	AD	8.65
	Ballistyx	Psygnosis	AC	8.65
80	Action Stations	RAW Entertainment	WG	8.64
	Conan the Cimmerian	Virgin	AC,RP	8.64
82	Armada 2525	Interstel	ST	8.63
	Megafortress	Three-Sixty	SI,ST	8.63
84	Wayne Gretzky Hockey	Bethesda	AC,ST	8.62
85	Pool of Radiance	SSI	RP	8.61
	Les Manley in: Lost in L.A.	Accolade	AD	8.61
87	Tony LaRussa's Ultimate Baseball	SSI	SP	8.60
88	King's Quest IV	Sierra	AD	8.59
	Wide World of Sports Boxing	Data East	SP	8.59
90	Buck Rogers	SSI	RP	8.57
91	Chessmaster 2100	Software Toolworks	ST	8.56
92				8.55
93	Genghis Khan	Koei	ST,RP	8.54
94	Future Wars	Interplay	AD	8.53
95	Panzer Strike	SSI	WG	8.51
	Leisure Suit Larry III	Sierra	AD	8.51
	Sword of the Samurai	Microprose	ST,RP	8.51
98	The Games: Winter Challenge	Accolade	SP	8.50
99	Savage Empire	Origin	RP	8.48
100	Champions of Krynn	SSI	RP	8.45

The Computer Gaming World Poll

A monthly survey of the readers of Computer Gaming World Magazine.

Prepared by Golden Data Services.

PC Research Top Hits
February, 1992

Games (MS-DOS)

Rank	Title and Source
1	*Star Trek: 25th Anniversary* (Interplay)
2	*Sid Meier's Civilization* (Microprose)
3	*SimCity* (Maxis)
4	*SimAnt* (Maxis)
5	*Falcon 3.0* (Spectrum HoloByte)
6	*Eye of the Beholder II* (Strategic Simulations Inc.)
7	*Secret Weapons of the Luftwaffe: Mission Disk II* (Lucasfilm)
8	*Police Quest 3* (Sierra On-Line)
9	*Links* (Access)
10	*Leisure Suit Larry V* (Sierra On-Line)
11	*Matrix Cubed* (Strategic Simulations Inc.)
12	*The Secret of Monkey Island II* (Lucasfilm)
13	*Chessmaster 3000* (Software Toolworks)
14	*Flight Simulator 4.0* (Microsoft)
15	*Secret Weapons of the Luftwaffe* (Lucasfilm)
16	*King's Quest V* (Sierra On-Line)
17	*F-117A Stealth Fighter 2.0* (Microprose)
18	*Super Tetris* (Spectrum HoloByte)
19	*Mike Ditka Ultimate Football* (Accolade)
20	*Wing Commander II* (Sierra On-Line)

Games (Amiga)

Rank	Title and Source
1	*Team Suzuki* (Gremlin)
2	*Spacewrecked* (Gremlin)
3	*Populous II* (Electronic Arts)
4	*Monty Python's Flying Circus* (Virgin Games)
5	*Red Baron* (Sierra On-Line)

Games (Macintosh)

Rank	Title and Source
1	*Flight Simulator* (Microsoft)
2	*Spectre* (Velocity)
3	*SimAnt* (Maxis)
4	*SimCity* (Maxis)
5	*V for Victory* (Three-Sixty Pacific)

Home Education (MS-DOS)

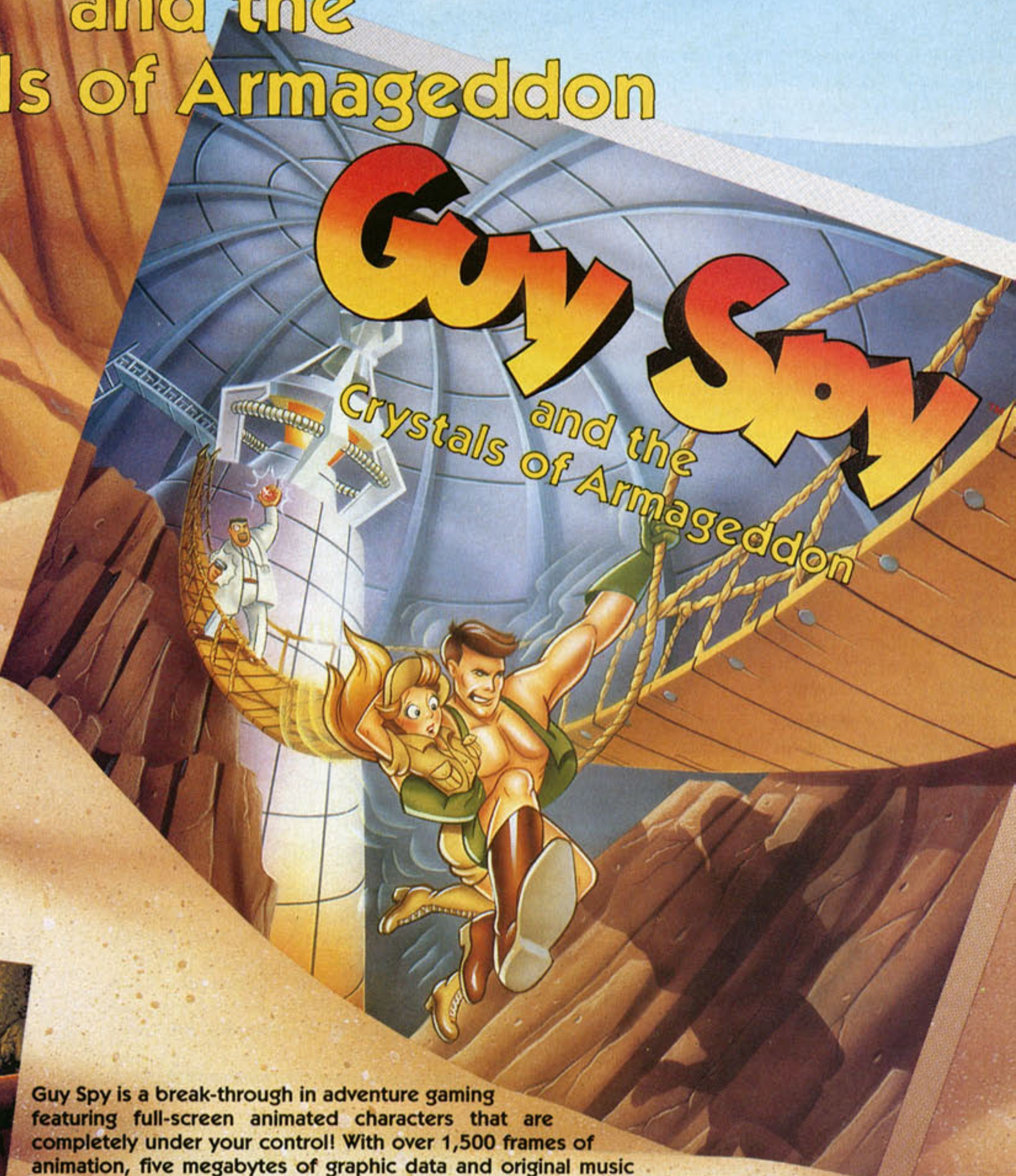
Rank	Title and Source
1	*Where in the World is Carmen Sandiego?* (Broderbund)
2	*Where in the U.S.A. is Carmen Sandiego?* (Broderbund)
3	*Mavis Beacon Teaches Typing* (Software Toolworks)
4	*New Math Blaster Plus* (Davidson)
5	*Reader Rabbit 1* (Learning Company)
6	*Reader Rabbit 2* (Learning Company)
7	*Where in Time is Carmen Sandiego?* (Broderbund)
8	*The Treehouse* (Broderbund)
9	*The Playroom* (Broderbund)
10	*Algeblaster* (Davidson)

This list is based on units sold by Software Etc., Babbages, Waldensoftware and Electronics Boutique. For more information, please contact PC Research at (703) 435-1025. CGW

Computer Gaming World's Hall of Fame

Bard's Tale I
Chessmaster
Dungeon Master
Earl Weaver Baseball
Empire
F19 Stealth Fighter
Gettysburg
Gunship
Harpoon
Kampfgruppe
King's Quest V
M-1 Tank Platoon
Mech Brigade
Might & Magic
M.U.L.E.
Pirates
Railroad Tycoon
SimCity
Starflight
Their Finest Hour
Ultima III
Ultima IV
Ultima VI
War in Russia
Wing Commander
Wizardry

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Circle Reader Service #72

Beyond Carmen

Real Edutainment Software for the '90s!

by Sara Reeder

CGW is expanding its continued commmittment to edutainment products with this new monthly column. Now, parents will not have to wait for our periodic round-ups and occasional feature reviews in order to guarantee that their children can have the same beneficial experiences from computer gaming that they do, fun and enlightenment. In the spirit of Wordsworth ("The Child is father of the Man"), we present our newest feature.

As any mom or dad who has prowled the malls trying to find *entertaining* educational software for his or her kid can tell you, *edutainment* has historically been a good working synonym for *wishful thinking*. Even the most casual observer (or bewildered parent) quickly arrives at the realization that the educational and entertainment software industries have spent most of the last decade on two mutually exclusive tracks: one making fun products that were sometimes, as an afterthought, sort of educational; the other making pedantic programs that sometimes, by sheer accident, were almost fun to use.

For a lot of reasons having to do with demographics and the relentless march of technology, those days have recently drawn to a swift and unlamented end. For one thing, it is beginning to dawn on folks that the work of childhood *is* play and that games are an essential part of the learning experience. At the same time, a lot of game-playing parents are asking for programs that they can feel good about sharing with their kids. Fortunately, almost every major software publisher, on both sides of the fence, has begun to respond.

Suddenly, after years of theoretical dreaming, the '90s may finally be the decade that real, honest-to-goodness edutainment software comes into its own. There are a lot of interesting new products being published and many are actually being done well. This growing category combines the excitement and technical artistry of games with the most effective teaching strategies conjured by the education developers.

This column is for all the parents out there who are hoping to see that happen. We will monitor the explosion of new computer experiences that are now available to kids and deal with some of the larger issues and concerns that arise as a result. Since there are a lot of new ideas coming from a lot of different directions, this column's criteria for *edutainment* will be, by design, somewhat arbitrary and idiosyncratic: the products reviewed may range from bestselling traditional-type games to classroom programs that also happen to be available to parents and kids at home. A few of them may not even be games in the classical sense, but rather computerized toys that encourage exploration and experimentation. Basically, if it is fun and you are likely to learn anything from it, it is fair game for this column. At last, "edutainment" is more than a buzzword.



Designasaurus II

It's Not Easy Being Green

This first column centers on *greenware* — one of the most engaging new genres to emerge from the edutainment market. It probably goes without saying that the very best way for kids to learn about the environment is to spend a lot of time outside, getting plenty of first-hand interaction with it. Nevertheless, a complete understanding of ecology also requires a working knowledge of geology, animal and plant biology, as well as meteorology — subjects that lend themselves fairly well to computer modeling, as well as to learning about anthropology and politics. The programs reviewed below give kids a variety of hands-on experiences in one or all of these areas, reinforcing strong environmental values along the way. The best news is that most of them coat the message with a powerful dose of fun.



SimEarth

For the youngest kids, **First Byte**'s *EcoSaurus* introduces the basics of responsible eco-citizenship. The game's scoring system rewards the player for accomplishing three basic tasks: saving water, using electricity carefully and picking up recyclable trash. (Now, if it could only teach them to pick up their rooms ....) *EcoSaurus* will appeal most strongly to primary-schoolers who are already fans of *Zug the Megasaurus* or who have some other experience with **First Byte**'s talking games. The game is short — anywhere from under an hour if one is zipping around picking up trash and turning off spigots, to three hours if one is taking the time to talk to the Eco Island inhabitants, as well as taking the scenic route through all the nooks and crannies. The graphics are charming, with large onscreen *hot spots* to make it easier for little hands to navigate, but anyone who is running a fast machine may find that they have problems in getting the sound to load properly. Still, *EcoSaurus* is colorful and appealing, while providing a potential springboard for some good conversations about the larger effects of everyday actions.

Dinosaur enthusiasts who are old enough to read well and play longer, more challenging games may enjoy *Designasaurus II* (**Brittanica Software**). Though the game's scenario is probably more convoluted than it needs to be (a mad scientist has stolen the geneprints for a synthetic Gigantodon and used time travel to hide them in 16 different times and places), most of the game involves helping an on-screen dinosaur survive long enough to complete the mission of finding a geneprint. Players can choose one of ten ever-popular dino classics (from tyrannosaurus to pteranodon) or create a custom beast in the genetic engineering lab. The kids I know who played the game thought the latter feature was the best part: not only did they get to decide what the critter looks like, which habitat it likes, what it eats and how it defends itself, but they were also allowed to name it. The program also let them print out any of the real or created dinos (great for coloring), and included an order form for special transfer paper so they could stick their custom dino on a T-shirt.

Once the dino is turned loose to search

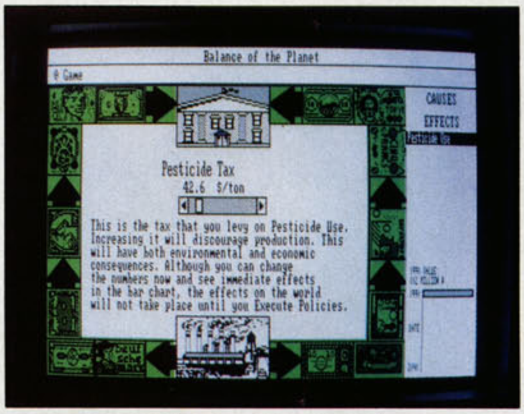
for a geneprint, the object of the game is to keep her fed, watered, rested, safe from attack and, if all goes well, enable her to court another of her kind and raise a family. Of course, it was a reptile-eat-reptile world back then: if one's dino is a carnivore, it will often take a fight to the death in order to get a decent meal. While there are few drops of blood shed during combat, the game spares sensitive young by never letting their dino die onscreen. Instead, when the health points are down, she gets *very sick* and is teleported back to the lab.

The on-screen instruction scheme is direct and clear enough to keep parents or children out of the manual and in the game most of the time (though there are a few important interface points that are not explained in either resource, like how to scroll through the menagerie of existing dinos). The 16 scenarios, each of which can be played through in a couple of hours, require a variety of different survival strengths, so kids will come to know lots of different dinosaurs and learn the value of, say, endurance over fighting ability. Besides communicating useful messages about ecological diversity and the role habitat plays in species survival, the game is packed with good raw information about genetic adaptation, the food chain and paleontology in general.

Given that **Tanager Software** got its start porting games for **Electronic Arts** and **Accolade**, it is not surprising that their *The Secret Codes of C.Y.P.H.E.R.* has the look and feel of a well-designed entertainment product. It is all there: well-drawn graphics, a real music score (by The Fat Man and Dave Warhol, no less), an easy-to-use interface, competent and complete documentation and enough intricacy of plot to keep anyone much over the age of 10 coming back for more.

The object of the game is to solve cloak-and-dagger mysteries, using information about hundreds of different mammals as a means of agent identification and communication — sort of Carmen-Sandiego-meets-Marlon-Perkins. (There are also frequent cryptogram puzzles to solve, to exercise those reading skills.) Completing the entire game can take weeks, but it is broken up into nearly 200 small missions that can each be solved in one sitting or less. Though the graphics get monotonous after a while, the game is brisk and varied enough to be easily addicting, and the kids will come away with a surprisingly deep knowledge of the habitat, physiology, diet and social habits of obscure animals like the dugong and rock hyrex. The four levels of play make it accessible for nine-year-olds and challenging enough for Mom. **Tanager** is planning *C.Y.P.H.E.R.* sequels that use the same detective-story theme to teach other subjects as well.

Audubon Software's *Audubon Wildlife Adventure* programs are home



Balance of the Planet

versions of games originally designed for classroom use, so they are more overtly "educational" than the others mentioned here. The classroom origins are readily apparent in the wonderful manuals, which each contain 20-25 pages of related non-computer activities (games, puzzles, craft ideas and information sources) to get the whole family involved and help foster long-term concern for wild animals.

In **Audubon**'s *Whales!*, players find themselves in a variety of scenarios in which they can sharpen wildlife observation and identification skills, learn about whale habitats and life cycles, record whale songs, participate in a beached whale rescue and discover the (often dismal) history of human interaction with whales. (Just for something different, there is also a scenario dealing with manatees.) With the notable exception of the evocative sound score, *Whales!* generally lacks the high production values found in more entertainment-oriented products, but the scenarios are well-written and packed with information that will appeal to landbound middle-schoolers.

Once, many years back, I spent nearly a year writing a US Forest Service ski area feasibility study — a once-in-a-lifetime job (or at least, I hope so). **Audubon**'s *Grizzly Bears* brought the entire aggravating experience back to life, in appropriately unreal CGA semi-color. Though the game follows the same scenario-based design as *Whales!*, its emphasis is on balancing competing human interests and making wise land use choices for bear habitat. My own sense of *deja vu* became completely unbearable (so to speak) while I was playing through the scenario in which my alter ego was working for an oil company, working side-by-side with USFS bureaucrats and doing seismic studies (read: making big explosions) in sensitive bear habitat. While the kids will probably learn a fair amount about bears from this game, they are likely to learn even more about the Byzantine political realities of American forest management. With only CGA graphics and no music, however, most parents would probably be better off taking the tykes on a hike in the nearest national park.

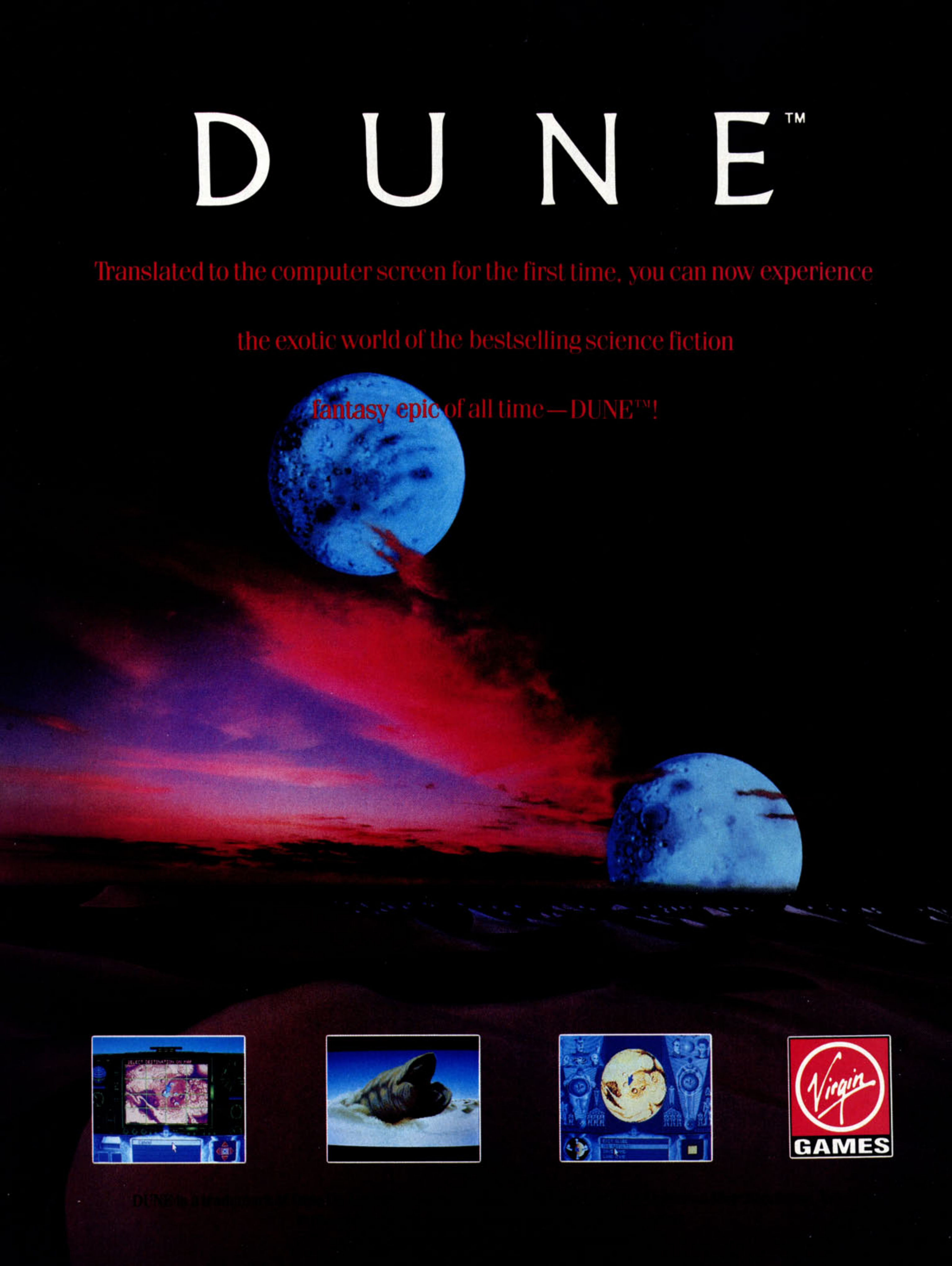
Earthquest Explores Ecology by **Earthquest** is a Hypercard-based Macintosh product that defies description within any of the usual categories. It is an on-line interactive encyclopedia that presents a broad range of ecological concepts in four distinct modules. The Rainforest and Eco-Simulator modules give demonstrations of things like seasons and climates, the water cycles, and the food chain. The Carrot Cruiser module offers a variety of mini-games that reinforce the information with mazes, quiz bees and sound identification. The fourth module, the Renegade Tour, is a game in and of itself, designed to give extra direction to a kid's exploration of the software. *Hypercard 2.1* is packaged with the program and users are encouraged to add their own information to the stack.

There are some interface anomalies that are not adequately documented in the manual, though an experienced Mac user can probably figure them out with a few minutes of trial-and-error. It is the overall tone of ecology that makes it special: never pedantic or condescending and full of the wonder of scientific exploration. It is a good investment for any family with kids over the age of nine.

Maxis' *SimEarth* has been reviewed, featured, profiled, advertised and ballyhooed to death on these and other pages. There is not much I can add to the already deafening roar of acclamation, except to say that it is some of the very best greenware going and a tremendously complex electronic laboratory wherein kids who already understand the basics of ecology can try out that knowledge, stretch their imaginations and get a small taste of how hard it really is to be God.

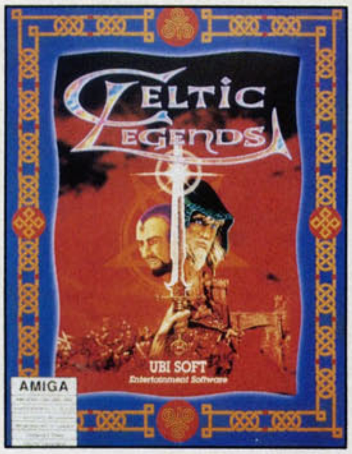
The same can be said of *Balance of the Planet* by **Chris Crawford Games**, an information-rich strategy game that illustrates, in awesome complexity, the relationship between human economic activity and planetary health. In Crawford's model, the gamer's only tool for changing human behavior is taxation of negative activities, like CFC generation or coal burning, or subsidy of positive ones, like solar energy development or population control programs. The profound interrelatedness of all the variables makes it a tricky game, dauntingly complex for many adults and potentially overwhelming for kids below high school age.

Next Issue: Everybody is doing "talking books" these days and the next column is going to be an overview of the current offerings. One central question: How is sitting your kid down in front of a talking book on the computer screen different than curling up in a big chair with Mom or Dad and a low-tech printed book? Look for some expert opinion about this in the July issue! **cgw**


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GAMES







Leave No Stone Unhinged

UbiSoft's Celtic Legends

by Allen Greenberg

TITLE:	Celtic Legends
SYSTEM:	Amiga
PRICE:	$49.95
PROTECTION:	None
DESIGNERS:	Pierre Fallard and Frederic Gaulbaire
PUBLISHER:	UbiSoft Sausalito, CA

For certain game players, there exists no greater satisfaction than that which comes with poring over a prodigious tome of a rule book and sifting through endless lists of numbers. It is no secret, however, that the goal of many new software releases is no longer to please that elite, slightly eccentric group of players. For example, **UbiSoft** recently introduced *Battle Isle*, a wargame which can comfortably be played with a joystick in one hand and a bag of chips on the other. That same company has also released *Celtic Legends*, a simple, yet imaginative, piece of strategy gaming that might also fall in the same category of "relaxed-ware." Were it not for one major flaw, *Celtic Legends* (*Legends*) would prove an ideal simulation for even the most casual player.

Its title notwithstanding, *Celtic Legends* contains not one reference to the mythology of the Irish, Welsh, Scots or even the basketball players from Boston. Rather, the story takes place in the fictional land "Celtika" in which two sorcerer-generals are at war. The player, in the role of "Eskel the Good" magically generates and leads an army of allies against "Sogrom the Bad."

Sogrom may be controlled either by the computer or a second human player. The action takes place on one of 23 islands in an archipelago, each of which features a different terrain that, of course, affects the level of difficulty of the confrontation.

In a typical fashion, the solitaire game requires the player to score victories on the easier islands before he or she may choose to fight on those which are more difficult. In two-player mode, however, the gamers may choose any of the islands from the start. In both versions, players may elect to have the islands populated by ill-tempered, mutant savages. The savages bear equal animosity toward both good and evil sorcerers, and will fight to prevent either side from gaining access to certain vital sources of magic. Although the opening levels of the game may be easily conquered, players will note that *Legends* increases in difficulty very rapidly.

Graphically, *Legends* is quite impressive. The strategic display includes an overview of the current island on one side of the screen and a close-up view of a player-selectable portion of that island on the other. For bookkeeping purposes, as well as for defining certain special locations, the island is divided into the traditional hexagons of our wargame heritage. Each fighting unit, depending on the types of creatures within it, is allowed a certain number of moves between hexagons per turn. Lining the screen are informational displays, along with icons for issuing movement commands, building new fortresses, calling up detailed statistics or shifting from the strategic to tactical display.

The tactical display is used for combat as well as spellcasting. This is a full-screen close-up of *one* hexagon from the strategic display, and is further divided into hexagons of its own. Framing the screen are the statistics for any individual character on whom the pointer is resting. Selecting a spellcaster calls up a series of additional icons that indicate the spells that character is able to cast. Pointing to an icon also gives the player a verbal reminder of the icon's function.

Each on-screen fighter is capable of activity-specific animation and the entire presentation can be quite interesting when magic and combat are involved. However, the number of animations may also be reduced by the player in order to speed game-play.

Combat takes place one step at a time, as each combatant carries out his order as soon as it is given. Players have the option of allowing the computer to make all tactical decisions during combat, or making these decisions on their own. The different races of participating creatures each carry into the battle their own restrictions and talents, and this largely determines how an individual may be used. In addition, individual abilities improve as a character survives an increasing number of confrontations. Along with soldiers and magicians, Eskel's allies also include the congenial, yet deadly, Cyclops, as well as a race of semi-divine Archangels. Sogrom's followers include the vile Orques and Skeletons, as well as the intimidating Demons. The impartial savages also include a variety of creatures, including the mega-mutant, Minos.

Magic energy is the most precious resource in Celtika and both leaders must fight dearly for it. Certain outcroppings in the ground are the most abundant source of this power, and it is only here that Eskel and Sogrom may conjure new soldiers for their armies. Possession of these locations is an obvious advantage in the war, but overpopulating them with defensive forces will cause nasty repercussions. When the savages are present, they will further complicate matters by defending the magic sources, and they must be defeated without the use of spells. The two leaders may also build, at great expense, fortres-

ses which act as less powerful sources of magic. An enemy may capture a fortress for its own use and occupation, but again, must do so without casting any spells.

Because there are certain fighting conditions under which no spells may be cast and because many spells affect the enemy's ability to use magic, physical combat also plays an important part in *Legends*. The strategic combination of both types of assault is well-balanced in the game, as are the various types of obstacles with which players will need to contend. The mouse-based interface, along with some keyboard shortcuts, works extremely well to keep the action moving at a comfortable pace.

Indeed, the program is potentially quite enjoyable, until one makes the mistake of opening the instruction manual. Many poorly documented games have been imported from Europe, but none of these could hope to compete with the low standards set by the documentation in *Celtic Legends*. There is, of course, nothing new about pages of documentation wasted on an inept story that has nothing to do with actual game-play, while certain important features which actually appear in the program go completely unmentioned. To this, *Legends* adds sentences phrased in such broken English as to defy understanding. Made-up terminology appears throughout its pages, definitions for which are buried in text several pages following the actual use of the terms. The entire manuscript is then lovingly garnished with spelling and grammatical errors. The disparity in quality between this piece of software and its documentation is so great that one cannot help but wonder if **UbiSoft** did not deliberately test Bishop Wilburforce's famous analogy and attempt to produce it via simian transcription.

In the hope that recreational computing will survive and flourish, those companies guilty of packaging their software with carelessly composed documentation must realize they are discouraging potential newcomers. Novices attempting to use *Legends*, ironically a very user-friendly piece of software, will likely be as intimidated by its confusing 25-page manual as they would by the most weighty rule-book that wargaming has to offer.



Legends is supplied on two copy-protected disks. A third, formatted disk is required if a game in progress is to be saved. A full megabyte of RAM is recommended and the new 2.0 operating system is supported. Unfortunately, the program recognizes only one floppy drive.

Legends is really a respectable piece of work, one only hard-core strategists may wish to avoid. Those casual players who enjoy some depth to their simulations, without the danger of drowning, will probably have a good time with it. The instruction manual may be used to wrap fish. **CGW**

The Mysteries of the Jewel-Case

Three CD Tales of Murder and Intrigue for Multimedia PCs







TITLE:	Sherlock Holmes, Consulting Detective
SYSTEMS:	Multimedia IBM and Macintosh CDTV, TurboGrafx-16, and Fujitsu FM Towns
PRICE:	$69.95
PUBLISHER:	ICOM Simulations, Inc. Wheeling, IL

The metaphor and language of moviemaking has long been in use in interactive storytelling. From a software project's organizational structure (producer, director, background painters and musicians) to the concerns of "camera" angles, cuts and, recently, spoken lines, adventure games have aspired to and moved toward a cinema-style interactive movie. These cinematic inclinations have inspired the first software project that anyone unfamiliar with adventure games would truly call an interactive movie. *Sherlock Holmes, Consulting Detective*, a CD-ROM multimedia product from **ICOM Simulations** (creators of *Déjà Vu* and *Shadowgate*) is the first product structured entirely around full-motion video segments. With 50 parts cast, 70 costumes designed, and 25 Victorian sets built for the shooting of the video footage, *Sherlock Holmes, CD* seems more a cinematic effort than a programming effort.

Sherlock Holmes, CD is a collection of three murder mysteries, cut from Arthur Conan Doyle's classic mold and told through strings of full-motion video clips. Each mystery is kicked off with a longer scene in which the premise of the case and leading suspects are introduced. From that point on, it is the player's task to construct a viable, tryable solution to the case.

The Tools of the Trade

The gamers-become-sleuths have several investigative resources available to them, accessed via a very clean, simple iconic interface. There is the newspaper (both a hard copy and an electronic copy), which the player can browse for relevant facts; Holmes' files, containing background information on many of the well-known suspects; the Baker Street Irregulars, a network of street-wise eyes and ears that will do a little footwork on demand; and the Baker Street Regulars, a group of professionals who give advice within their various areas of expertise. Finally, players can access Holmes' suspect directory, a complete listing of all characters in the three stories. Players can choose to visit these individuals in person, initiating a video clip of Holmes and Watson's interview of the character.

The interviews are carried out in the characteristic Holmesian manner; poignant questions with subtle undertones, and the occasional introspective pause and chin scratch indicating, "Clue!" Of course, there is the jabbing banter between Holmes and Watson, which is a shade more good-natured than is normal with the two (though Watson still consistently comes out on the patronized end).

The game is designed such that there is a single video segment for each suspect. One might expect that returning to a suspect after gathering a crucial clue might change the tone of a suspect's song. This is not the case as all clue synthesis, which typically blossoms into Holmes' brilliant deductions, is left to the player. Fortunately, in these cases, an inhuman eye for detail and a godlike sense of intuition are not required (not to say that the cases aren't challenging).

When players feel they've gathered enough data to nail the culprit, they may visit the court, where they are administered a multiple choice exam by the justice. If players have their facts straight, they are treated to a full explanation of the case by Holmes and given a score based upon the number of resources used to solve the case.

Art for Game's Sake

Artistically, *Sherlock Holmes, CD* is unlike any entertainment software on the home computer. The full-motion video clips, some of which run several minutes long, seem to run near standard video resolution (actually they run at the equivalent of 15 frames per second). These clips are interspersed with flavorful pencil sketches in an appropriate courtroom-artist style, creating a rich visual effect. The setting, casting and acting are all of a low-end television production quality (with only one or two cases

of overzealous acting), equal to an average public television production. The sound track, with theme music, background sounds and scene ending fanfares, fills out this very solid effort.



Issues in Interactivity

With its novelty and high production value, the case for *Sherlock Holmes, CD* opened and shut. Unfortunately, there are a few loose ends that must be addressed.

Sherlock has failings where nearly all adventure games and interactive stories are weak, that is, in replayability. This is an issue that creators of interactive movies must solve or justify if they wish to be successful in the future. Replayability isn't much of a problem with current adventure games because gamers have come to expect it and are willing to pay for a future "dust-gatherer" if the game gives an adequate amount of play time (somewhere around 30 hours minimum?). It becomes more of a problem with interactive movies like *Sherlock*, in which the three mysteries can be played through in a couple of sittings with little provision for replayability. The *Sherlock* design tries to encourage replay by giving the player a score upon completion of a case and challenging the player to best the fictional score of Sherlock Holmes, but anyone with adventure game experience will recognize this as a weak solution. Replaying a linear storyline, especially a mystery story in which one already knows whodunit, is an exercise in tedium that few will be willing to endure for the sake of an incentive as contrived as this. One should give the designers' effort points for recognizing and attempting to address the problem, but their solution just isn't adequate.

Concluding Statements

The question is, then, whether Mr. T. Reviewer gives the software a recommendation or not. In the case of *Sherlock Holmes, CD,* he does with qualifications. This is a ground-breaking product with whiz-bang technology that demonstrates the full potential of multimedia. Players can expect a brief, lively, and charming burst of entertainment out of the game, and perhaps 6 to 12 months of gee-whiz value to impress friends and neighbors. Add to this the fact that *Sherlock* is one of the few CD-ROM entertainment products out there that justifies one's expensive hardware upgrade. It is truly a novel product and something for every CD owner to see. The question remains, however, whether gamers will continue, once the novelty of the technology wears off, to shell out $70 to $80 for games with limited play life.

This review is based upon the IBM version running on a 386-20 with a Sony CDU7205 CD-ROM drive and a Sound Blaster Pro. **CGW**

Nautical Notes on *Uncharted Waters*

Finding Favor and Fortune from the Flagship

by Dave Arneson

Old World Ports of Haul

This chart lists special market information for Old World ports of call.

Port	Artwork	Cheese	Grain	Porcelain	Sugar
Alexandria	P		P		
Algiers	P		P		
Antwerp	P		S	S	P
Azov		S		S	
Bordeaux		S			
Genoa	P		P		P
Hamburg	P		S		P
Istanbul	S				
Lisbon					S
London	P		S	S	P
Majorica			S		
Naples	P		P		
Oslo	P	P	S	S	P
Pisa	S				
Treb	P		P		
Venice	P		P	S	P

P = this port has a good market for this item
S = this commodity is cheap at this market.

Note: Marseilles, Tunis, and Valencia have nothing special about their markets. Seville does not have any special markets either, *but* one can buy Galleons both "Used" and "New".

Dave Arneson drafted the basic rules and concepts that burgeoned into the original Dungeons & Dragons *people and paper game., as well as early computer games like* RAF: Battle of Britain.

Since players earn points for discovering ports, the most efficient way to rack up points is to plan on going around the world in *one* voyage. For that, one will need Galleons with crews of roughly 60-100 men, loaded with supplies and all the gold possible. Then one simply weighs anchor and sets forth, heading west from England to Jamestown. Since there is nothing at Plymouth and points to the north, it is optimal to turn southward and follow the coast all the way down around South America and up the coast to California. In the Caribbean, one can find Santo Domingo and Jamaica. Jamaica is empty and Santo Domingo is east of Cuba (There is *no* Havana). Once one reaches California, it is possible to load up in Eureka and head West across the Pacific to Japan.

Silver will find good market value in Japan. Once one reaches Asia, it should be possible to discover ports along its coasts, as well as along those of the Middle East and Africa. Alert captains will not fail to travel up the Red Sea to Mecca or to locate Java (east of the tip of Malaya).

Captains who find themselves running short of cash in this corner of the world will find that there are some good short trade runs on India's west coast and along the east coast of Africa. It only requires checking the Port Markets for the best buys. Courageous captains should also note that circumnavigating Africa takes long enough that one should leave with at least 60 days of food or plan on plenty of stops. After all of this, one simply sails back along the northwest coast of Africa and one is homeward bound!

Bigger Is Better

Captains with no objection to being combative should plan on dropping by Seville and buying some nice new teak-hulled Galleons loaded with *cannon*. Successful captains will keep at least 200 men on their flagships and at least one hundred able-bodied seamen on each of the other ships. Militaristic merchants who load ships equipped in this fashion with the maximum number of cannon will find that they should never have to fear a pirate or enemy fleet again.

The secret in a naval battle, of course, is to sink or capture the opposing flagship. Nothing else matters. Once the flagship is gone, the enemy surrenders. Basically, the computer enemy's goal is always to chase down the player's flagship. So, any player with a modicum of intelligence will make his or her flagship absolutely the most powerfully armed and best manned ship of the fleet. The flagship's ability to resist will, in turn, give one plenty of time to go after the enemy's flagship.

Naturally, if the computer-controlled captains of the other ships in one's fleet manage to storm some enemy ships, their battle prowess will increase, but frankly, the player's character is the only captain that *really* counts. It is best to get the fight over with as soon as possible and move on to the loot. One can only get gold, treasure and cargo from a defeated enemy. No ships may be taken as prizes and no crew members recruited to replace one's own casualties.

Then, as soon as possible after a battle, one must get to shore and fix any ships damaged during the conflict, as well as redistribute the crews. In this, one makes certain that the fleet is in fighting trim all the time. **Note:** Rather than have several weak ships, it is better to have a few strong ones. Clever players will not hesitate to scrap the clunkers out of their fleets. There are more ships where those came from and valuable cargo can always be transferred to other ships.

Oddly enough, whenever one needs supplies in distant waters, there are pirates who conveniently show up. This can be tremendously beneficial after a battle! It is far cheaper than any port and may help bail players out when cash is short.

In the New World

The best commodities to sell in the New World are firearms and sugar. The grain markets are OK. Cotton is readily available and cheap.

Port	Coordinates	Notes
Caracas	N5 W80	
Guatemala	N5 W100	
Jamaica	N10 W80	
Nova Grano		"Empty" Port
Panama	N5 W85	Sells Gold
Santo Domingo	N10 W25	Sells Coral
Vera Cruz	N15 W100	
Virginia	N45 W75	"Empty" Port

The Pacific Coast and South America

Most of these ports are "empty," but they will be needed for supplies when treasure hunting.

Port	Coordinates	Notes
Acapulco	N15 W110	"Empty" Port
Chanchan	S30 W80	"Empty" Port
Copiapo	S45 W70	"Empty" Port
Eureka	N55 W120	"Empty" Port
Pernambuco	S25 W50	
Rio de Janeiro	S65 W60	"Empty" Port
Rio Grande	S40 W45	"Empty" Port

The Exotic Far East

Port	Coordinates	Notes
Danaga	N10 E105	"Empty" Port
Java	S20 E105	
Macao	N20 E110	Sells Pearls
Malacca	S0 E95	
Nagasaki	Japan	Best Source of Silver
Zeitan	N25 E115	Pearls, Silver, Gold

India

Port	Coordinates	Notes
Calcutta	N5 E75	
Ceylon	S0 E80	Good Cotton Market
Cochin	S0 E75	
Diu	N25 E65	OK Wool Market
Goa	N10 E70	

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WARRIOR OF ROME II

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Circle Reader Service #30

Adventurous gamers will need to be aware that, upon entering a hostile area, they will have to pay a bribe or leave. At the start of the game, one only needs to be concerned with the Turks. Later, the Spanish are likely to become hostile to the player. Except in the specific cases of Istanbul and Seville, hostile ports can be "bought" over through investment. Unfortunately, once the Spanish and the Turks become hostile, they tend to stay that way for the duration. The usual bribes start at 3,000. Since the bribe only lasts for one day, it requires forethought to use the time wisely. This means one had better purchase those galleons in Seville on the very first day, since fitting ships out will take several days. Unfortunately, Seville is the only place to get Galleons during most of the game.

As for Istanbul, it is really bad news. There are several missions that take one there; there is no way to get in without paying the bribe and it is not always possible to find a cargo of cheap *artwork* while there. The latter will sometimes pay for the trip, but missions to or through Istanbul are generally money losers.

Ports Of Haul

Whenever one buys goods, all the prices in the port go up. Likewise, whenever one sells goods, all prices go down. Traders are best off, then, keeping the number of transactions to a minimum. The comments on specific ports below reflect only the "sure-fire" market situations. These can change due to the effect mentioned above, such that even great ports like Naples can get glutted after awhile. This is usually the result of selling and buying by the galleon-ful.

Arabian Peninsula

Port	Coordinates	Notes
Aden	N10 E40	Good Quartz
Baghdad	N30 E50	Good Artwork and Carpets
Hormuz	N25 E55	
Mecca	N25 E35	
Muscat	N25 E50	

East Coast of Africa

These ports generally have good Grain markets.

Port	Coordinates	Notes
Mobasa	S10 E40	Fair Quartz, Good Ivory, Cheap Wood
Mozambique	S15 E40	Fair Gold, Cheap Wood
Sofala	S25 E40	Cheap Wood

West Coast of Africa

Port	Coordinate	Notes
Argin	S0 W210	Sells Gold
Capetown	S45 E25	"Empty" Gold
Luanda	S20 E15	"Empty" Gold
San Jorge	S0 W5	Sells Gold and Ivory
Verde	N5 W15	"Empty" Gold

The Northeast Passage

Port	Coordinates	Notes
Injiga	N70 E30	"Empty" Port
Sibir	N70 E70	"Empty" Port

Strait Talk on Treasures

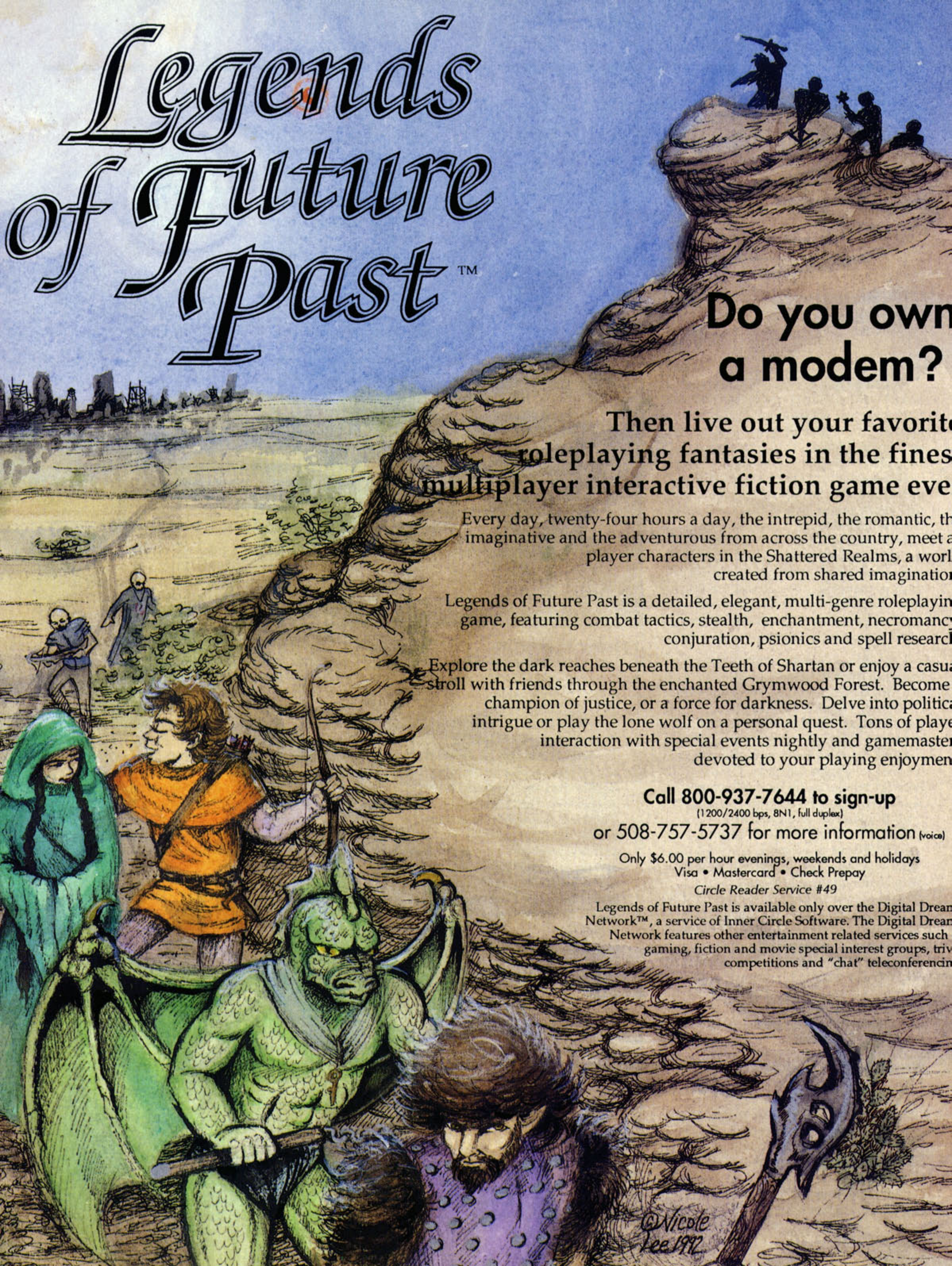
The **Hydra Gem** is at N60 W130 (North of Eureka California) but the search starts in London (usually).

The **Ruby Helmet** is at S25 W85. The map ... well ... plan on a long voyage.

The **Royal Dagger** hunt starts in Panama to Vera Cruz to Bordeaux to S65 W145.

The **Golden Ring** search starts in Lisbon, then to Mombasa, then to Pisa and finally to Mecca. The treasure is at N5 E50.

The **Princess Rescue** begins with the Nasty Spaniard hanging around the Straits of Gibralter and the Western Med. Keep attacking everything in sight and he will show up. Algiers makes a decent base, as does Valencia. **CGW**



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On *Not* Raising a Führer in the Kremlin

Comrades and Capitalists Unite in Crisis in the Kremlin

by Johnny L. Wilson

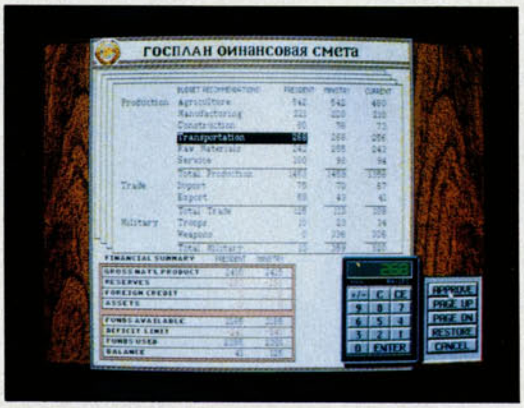
"*Perestroika* is a trick." "*Glasnost* is a hoax." "Gorbachev is *not* to be trusted." Such were the accusations of the political right as a new style of governmental and economic influence began to emerge within the Soviet Union. While the West's intelligence communities were warning their respective governments that a coup was highly probable and that Gorbachev did not have enough support to force open the Iron Curtain once and for all, many casual observers questioned Gorbachev's *will* to induce the kinds of changes necessary to convert the Soviet Union from a totalitarian regime with planned economy to an open regime with free-market economy.



At the time this issue went to press, events in the Confederation of Independent States were still very much topical issues. Yeltsin's cabinet had threatened to quit if Yeltsin's radical economic reform program was not implemented, but the common farmers were hesitant to accept the plots of land promised them in the land reform already implemented. Reform is truly a difficult proposition. In **Spectrum HoloByte**'s *Crisis in the Kremlin*, players choose between walking the same tightrope that Gorbachev had to cross, learning what it means to be changing policies too fast for the conservatives and too slowly for the liberals; tightening the reigns a la Brehznev, holding fast to old ideals without starving the people or ending up with a bloodbath; or ducking and weaving between bold strokes and reasonable compromises a la Yeltsin, discovering how difficult it is to democratize when the populace is still afraid of the process.

President Announces Glorious Plan

The game begins with the player acceding to the presidency of the USSR. The first order of business is to establish the policies under which the player's government will rule the country. There are ten categories of policies to be established, in a range from one to ten, both at the beginning of the game and each May Day upon the anniversary of the Revolution. *Style of Government* runs the gamut from despotic to democratic; *Military Posture* can be set on a scale from aggressive to pacifistic; *Diplomatic Posture* flows from hostile to submissive; *Trade Policies* can be either protective or permissive (few restraints); *Civil Rights* may be restricted or end up close to anarchy; *Media Freedom* may be very restricted or totally uncontrolled; *Economic Policy* will either be based on a matrix between a central bureaucracy and an uncontrolled free market; the *Work Week* may fluctuate between forced labor and extreme leisure; the government may establish complete *Wage Control* or leave it unrestricted and *Type of Ownership* may vary from complete state ownership to highly privatized ownership.



Player presidents are advised, however, not to give away their strategic plan. If one makes too many policy changes over the default positions, it is very likely to bring about an immediate hard-line coup. Players either meet an untimely end or make unreasonable compromises when these hard-line coups occur, so it is wise not to try to accomplish too much at once. As in any form of politics, one needs to move slowly enough to give the majority time to get used to the change that is occurring. Moving slowly is the best policy *if* one is getting results on the important fronts.

In *Crisis in the Kremlin*, the important front is the economic front. If one is feeding the people and the quality of life is getting better, the president will have plenty of leeway to handle governmental reform as the game advances.

President Calls for Patience

Since the player will not be able to make any direct changes to the budget until November of his/her first year in office, the best way to accelerate change is to initiate one level of property reform (Type of Ownership). Then one should advance the calendar to November as fast as possible. Since, however, the player's predecessor has left the Rodina (motherland) in such a mess, the player is likely to be faced with a series of crises. Many times the crisis will be foreshadowed with digitized video footage of the crisis situation (courtesy of the **Cable News Network** archives) or a Telex from one governmental agency or another. The player should not feel guilty about these early problems and should merely try to stall major decisions until he/she wields more political influence.

Once the crisis is actually in play, the player will be required to "answer a phone call" and receive a text message briefing him/her on the crisis. If the call came from the president's ministers or the KGB, there will be a suggested course of action. Then the president will be confronted with a check list of options for dealing with the crisis. The president can either choose one of the options or ignore the circumstances by clicking on his/her cup of tea. The decision will either solve the crisis, forestall it or exacerbate the crisis.

As play advances to the next month, a summary of the president's position in the crisis will be provided in either newspaper form or a new digitized film clip related to the decision. Whatever occurs, the player must, by all means, stay in power until the budget process takes

effect in November. Frankly, the game will be won and democracy established via the war of the wallet. Everything else is damage control.

President's Budget Slashes Foreign Aid

Budgetary decisions will determine the success or failure of any administration. *Crisis in the Kremlin* allows players to set the detail level with which they wish to manage the economy, so that they can determine if they want to macromanage or micromanage the Soviet economy. This writer opted to micromanage the budget. In this way, he could finesse certain budget cuts past his ministers (and the KGB!) and move swiftly toward a balanced budget. Yes, conservatives, the president *does* get a line-item veto in this political game. If one can reach the point at which the economy is growing and the budget surplus is higher than the deficit limit, there is no stopping the onslaught of democracy.

Budgetary decisions can be influenced in several ways. In addition to the president's ministers making budgetary suggestions, a dynamic graph located in the lower left-hand corner of the screen shows crisis (red), problem (yellow) and positive (green) points within the country's infrastructure and occasional letters indicate surpluses and deficits within the economy. Using the three potential sources of information, the president can decide where to budget those precious rubles in order to bring about both popular acceptance of the government and overall improvement in the economy.

This writer experienced regular success by slashing the foreign aid budget (not to those within the republics) and the research and development funds for space exploration, followed by small, but regular, annual cuts in military research and development, troop salaries and weapons procurement. This proceeded to give the government enough of a surplus to fund fast-expanding agricultural advancement coupled with annual policy changes in ownership to simulate land reform. If one can survive a couple of years in this fashion, things usually begin to turn around and it is possible to make more substantive changes.

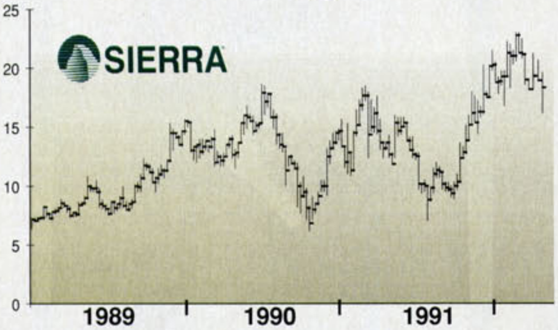


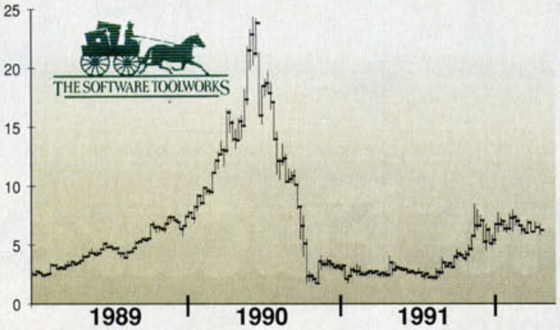
The President Launched a Tirade Against Hard-Liners

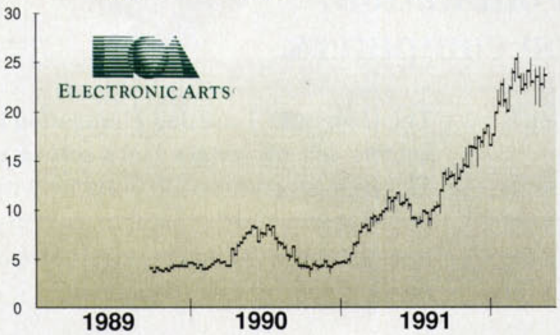
Crisis in the Kremlin features a complex model underlying the decision-making process, interesting technological chrome using video footage and a fascinating subject matter. In its early form, the game looks and plays like the kind of game that micromanagers will love and macromanagers will hate. It calls for a vision and a plan, as well as the flexibility necessary to implement one's ideals within the context of political reality. *Crisis in the Kremlin* may be too much of the real world for many gamers to enjoy. Fortunately, it is solid enough for many of us to savor. **CGW**

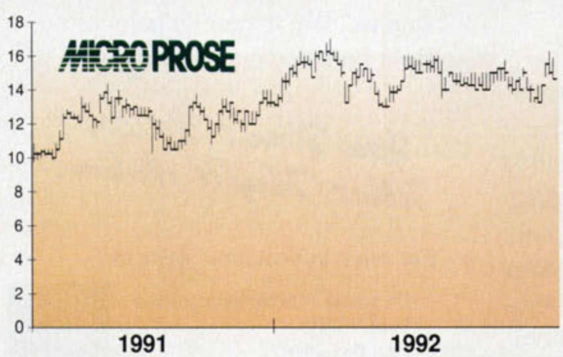
CGW STOCK WATCH

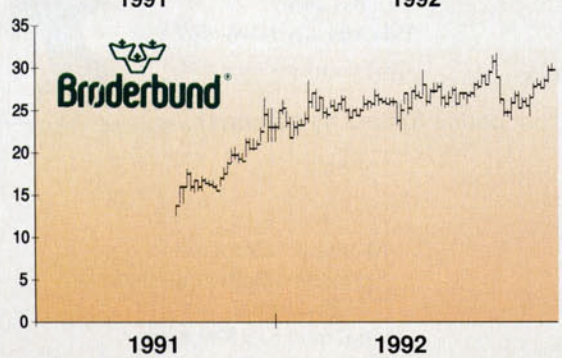
A monthly look at the Computer Entertainment Stock Market











Stock Watch!? What's that? It's something new that will appear in each issue of *CGW*. *Stock Watch* will highlight the performances of public companies in the entertainment software business. Currently, we will be watching five players: **Sierra**, **Software Toolworks**, **Electronic Arts**, **Microprose** and **Broderbund**. The charts and commentary presented on this page are a reference point for hobbyists who might be interested in investing in these companies. *Stock Watch* will function as a tool, albeit *lagging* (because of the lead times inherent in publishing a monthly magazine), for examining stock performances. Nonetheless, this column will be both a visual aid and forum for presenting information concerning the relative strength of the entertainment software industry, which should be interesting to readers whether they are investors or not. As always, investors are advised to perform their own diligent research prior to investing.

Stock Watch will usually contain three features: a) one or more charts showing recent action in a software publisher's stock; b) some rudimentary information for the beginning investor and c) a news/analysis story about one or more of the software companies. The latter should put the chart or charts in perspective.

How *Can* You Invest?

Computer gamers who do not currently have a stock brokerage account (but want to invest in the software industry) can usually open a cash account with a stockbroker for about $2,000. Those with modems may want to consider establishing an account with **Quick & Reilly** on **CompuServe** or **Charles Schwab & Co.** on **GEnie**. Such accounts are handy because they allow one to place orders on-line twenty-four hours a day, for immediate execution upon the market opening (especially for those on the Pacific Coast who do not like to phone their broker at 6:30 A.M.) and allow one to update their portfolio value at any time.

Now, one only needs to know the stock one wishes to purchase and the price per share. If one is using an on-line service to place the order, it is also a good idea to know the stock ticker symbol (the abbreviation in all caps that often follows the company name in a news story). The ticker symbol also helps investors to observe the latest transactions when following the ticker on the CNBC or Headline News network or to be able to call up quotes on a telecommunications service. Currently, all of the entertainment software publishers that are public are on the NASDAQ (over-the-counter market). The ticker symbols for the five entertainment software companies are: **Broderbund** (BROD), **Electronic Arts** (ERTS), **Microprose** (MPRS), **Sierra** (SIER) and **Software Toolworks** (TWRX).

Prices are listed, both in the newspapers and on the on-line services, on a per-share basis. So, if **Software Toolworks** stock is listed at 6 (i.e. $6.00 per share), it would cost an investor $600 to buy 100 shares (i.e. a round lot, the most common quantity in which stocks are purchased by individual investors) *plus* the broker's commission. Brokers make *their* money whether the investor makes any or not. A typical discount brokerage (**Quick & Reilly** or **Schwab**) commission for that transaction would be approximately $40 to buy the stock and $40 to sell it. That means that the stock would have to increase one full point, to 7, in order for the investor to be able to sell it and even make $20 on 100 shares (although larger investors who purchase more shares pay less percentage-wise on their commissions). Of course, once the commission is covered, the rest belongs to the investor and, eventually, Uncle Sam (capital gains taxes are applied to the profits of stock sales).

How Do You Read These Charts?

The top three charts in this month's *Stock Watch* are weekly charts. Each vertical line represents one week of trading, with the high point representing the high price for the entire week and the low point representing the low price for the week. The short horizontal line is called the closing tick and shows the *final* price for the week. The bottom two charts are daily charts, showing highs, lows and closing ticks on a daily basis. This is because they are the newest public companies in the industry and do not have the trading history possessed by the other three companies.

What's This Month's Big Story?

The most exciting news for this issue concerns **Electronic Arts** (ERTS). EA was trading in the mid- to high 40s (ca. $45) when they announced a two-for-one stock split for every owner of stock on record as of March 16, 1992. This meant that for every share of stock which an investor owned as of the close of trading on the 16th, they would have two shares beginning trading on March 27, 1992 (the "x-date" when the split took effect). Of course, each share would now only be worth half as much as before (that's the bad news), *but* each point the stock rose in value would now mean double what it meant before (since those who owned 100 shares would now have 200 shares and so forth). The lower price should accelerate buying interest in the stock and create more demand. So, if the company continues to grow at the same pace, the original investors could conceivably make money at a faster pace.

Note that the **Electronic Arts** chart does not show its high-flying period in the mid-to-high 40s. This is because technical analysts (i.e. chart readers) adjust the trading history downward so that the chart's pattern continues to show the same relative price movements (in this case moving steadily upward), even though the per share price is lower at the present time than the per share price before the split.

EA's chart, both before and after the split, shows that investors are convinced that the company will continue its stable growth pattern. Investors perceive solid corporate leadership, a diversified product strategy and prudent long-range vision as indicators that growth will continue. **CGW**

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Sounds & Cymbals

Which Sound Card Works Best For Me?

by Mike Weksler

With all the accoutrements available in the world of IBM compatibles, the most amazingly overlooked item is the speaker. It is a cheap device that is one notch above a buzzer and designed to beep an occasional warning rather than provide any decent aural experience. It is the primary area in which the IBM compatible lags behind the Amiga and Macintosh platforms. Fortunately, this has, in the last few years, changed as the technology incorporated into sound cards for the IBM-compatible platform has become increasingly sophisticated.

This article will introduce the reader to the current crop of add-in sound boards and how they relate to games. It is not intended to uncover each detail of every board on the market — a book would be more suited to that task. This article divides sound cards into three categories: music synthesizer sound cards, music synthesizer sound cards with digital audio capability and multi-media sound cards. Note also that, though some sound cards are bundled with their own speakers, sound output can be greatly improved by jacking the sound card into one's stereo system or quality amplified speakers.

Music Synthesizer Sound Cards

Music synthesizer sound cards were originally designed to add music and limited sound effects to the IBM compatible gaming experience. With the exception of the **Roland** hardware, these cards tend to be the lowest priced and are available for under one hundred dollars. If one is only interested in background music and sound effects for games, these cards should be more than adequate.

Ad Lib: this sound card has been and still is the current standard for FM synthesized music in games. Most games on the market are labeled *Ad Lib compatible*. The Ad Lib card is bundled with the *Visual Composer* sequencing software to create one's own music and the *Jukebox* software for playing songs back.

Sound Runner: this is basically a stripped-down *Ad Lib* clone. It is priced less and comes with only a small pair of **Sony SRS7** speakers. If one just wants to play games, this is the most economical card available. Interestingly, this sound card was first advertised as the *Sound Commander* until the company learned that there was already a sound card available with that name. The *Sound Commander*, though, is both *Ad Lib* and *Soundblaster* compatible.

Roland *LAPC-1* or *CM-32L:* The Roland synthesizer cards are the ultimate in music sound cards. The *LAPC-1* is the bus card version, which can be purchasesd with or without a MIDI interface, while the *CM-32L* (next generation MT-32) is a separate module that connects to a MPU-ITC-T MIDI interface. The price is quite high at approximately $450 (street price) for the *LAPC-1* and around $500 or more for the *CM-32L*. Usually, sequencing software is bundled in with the hardware. This is a professional Roland synthesizer sans keyboard with: 32 voices, 128 instrument sounds, 30 rhythm sounds and 33 sound effects. To hear one is to buy one.

Music Synthesizer Sound Cards with Digital Audio Capability

What does a synthesizer sound card with digital audio capability have to offer over an *Ad Lib*-style standard music synthesizer card? In two words, the answer is "digitized voices." Such cards allow designers to bring real speech into games, as significant a technology to computer games as sound itself was to motion pictures in the late 1920s. One of the problems of moving from the "silent movies" of traditional computer games to the "talkies" of more modern games is the size of digitized sound files. Fortunately, this is remedied with the advent of CD-ROM, but such discussion is beyond the scope of this article. Digital audio-capable sound cards are becoming more numerous on the shelves and, in order to be competitive, each one boasts different features. All of the following cards mentioned below are compatible with the *Ad Lib* standard.

Soundblaster: CMS manufacturers this sound card, which has the **Yamaha** 11 voice mono-synthesizer chip identical to the standard *Ad Lib* board. It is 100 percent compatible with regard to games written to the *Ad Lib* standard. It also has the capacity to allow gamers to digitally record and play back sound samples. This is the standard that most developers base their digital audio-capable products on. It is bundled with digitizing utilities and music sequencing software in addition to having multiple inputs for line-in, mic-in, and line-out. A MIDI connector box may be added for connecting to a MIDI-compatible keyboard (to record keystrokes into one's music sequencer program). Additionally, there is a joystick port (which also doubles as the MIDI connection for the MIDI box). Although there have been many cards that have come out since the original *Soundblaster*, it is still "tried and true" when it comes to issues of compatibility.

Thunderboard: If one is not into all the extra software that comes with the *Soundblaster*, **MediaVision**'s *Thunderboard* is a lower-priced alternative, complete with optional MIDI interface, and claims 100% compatibility with products written for both the *Ad Lib* standard and the *Soundblaster* standard. It comes bundled with demos of three front-line software programs.

Sound Master II: This sound card from **Covox** is compatible with their *Speech Thing* (a device that plugs into one's parallel port and plays digitized sound through a speaker) as well as the *Soundblaster* card. Unfortunately, it re-

Playin' Musical IRQs — Sound Card Installation

Installing a soundcard into one's computer can be as simple as dropping the card into an empty slot, plugging in the speakers and running the appropriate setup utility for a given game. On the other hand, hardware conflicts in IBM-compatible equipment can be a real nightmare. The reason that conflicts may occur is largely attributed to two cards trying to use the same interrupt request (IRQ) (on an ISA bus — EISA buses have the capability to share IRQs). There are jumpers on most bus cards that allow one to select which IRQ to use. Commonly, on a sound card, IRQs 2, 3, 5 and 7 are selectable. Additionally, there can be DMA conflicts as well as base memory conflicts. It is a good idea to have all the information on each of one's bus cards written down before a sound card installation is undertaken — of course, one can always start yanking out cards until the sound card plays the test music (which sometimes ends up being a viable solution for getting a sound card to work in a given system).

quires a TSR ("terminate and stay resident") driver to be compatible with the latter and everyone knows TSRs take up memory. Many games will not run with any TSR in memory, however, so one loses the advantage of having the board. It also requires two IRQs. The *Soundmaster II*, however, does play *Soundblaster* digitized samples and comes with a variety of digitizing and sequencing software, including a program that converts the *Soundblaster* .VOC files for replay through the **Covox** card. It also has voice recognition and the capability for digital signal processing for pitch changing, harmonizing, flanging, reverb, chorusing distortion and echoes. The *Sound Master II* may not be fully *Soundblaster* compatible for games, but enough of the major developers support the card in their games that some gamers will want it because of some of the other things it does. MIDI is handled on the card without the need for a MIDI connector box. Additionally, the PC speaker may be bypassed and the signal run directly through the *Sound Master II* for an increase in the quality of output from the PC speaker. The latter configuration is useful for games from **Access** that utilize the *Real Sound* technology. If the reader is into digitizing and creating interesting samples, this may be the card to check out more closely.

Stereo FX: This one comes from **ATI** — the same company that makes hot-rod VGA cards such as *Graphics Ultra*. It is a cross between the original *Soundblaster* (in that it requires an optional MIDI connector box for MIDI support), and the *Thunderboard*, if only the latter had stereo capability. It is *Soundblaster* compatible and is entirely software configurable. One merely bolts the card on, drops the hood and then fires up the software to set up the IRQ channel and other configurations — in other words, no jumpers. It comes bundled with speakers and is competitively priced.

VGA Stereo FX: The reader who is short on slots in his/her computer would do well to consider this hybrid between ATI's *VGA Wonder XL* 1024 x 768 x 256 color VGA card (which also runs in a virtual 32K color mode at 640 x 480 resolution) and ATI's *Stereo FX* card. It even has a bus mouse port and comes with a mouse (although it is not a replacement for premium-line mice). All this card needs is an industry standard SCSI port and it would be an MPC card. There is no volume knob on this card — it comes bundled with the MIDI connector box, a peripheral that handles volume control and joystick connections. Software drivers are included for most major applications, such as *Microsoft Windows* and *AutoCAD*.

Sound Commander FX: This board, from **Mediasonic**, is very similar to the *Thunderboard*, but is capable of supporting MIDI (without a connector box) and has an innovative infra-red remote control (sold separately), useful for business demonstrations. It is also bundled with presentation and Karaoke software. Another nice feature is the ability to connect to CD audio. It is even compatible with the Covox *Speech Thing*.

Other Digital Audio Capable Devices

The *Disney Sound Source* plugs into one's parallel port. It plays digitized sound through its built-in speaker and is supported by such Disney releases as *Dick Tracy* and *The Rocketeer*.

Sound Star: Though it sounds like another sound card, this is a device that, like the *Speech Thing*, attaches to one's internal speaker and allows the signal to output to stereo speakers. This particularly enhances products using *Real Sound* technology. It comes bundled with *Labtec* speakers (larger than most of the speakers bundled with other sound cards.

Multi-Media Sound Cards

A Multi-Media sound card should support the following features: CD-ROM with CD digital audio, minimum 8-bit DAC converter, minimum 8-bit linear analog-to-digital converter, digitally controlled analog audio mixer, music synthesizer chip, MIDI capability and should use DMA channeling and an IRQ line. A Multi-Media or MPC sound card is the heart of an MPC (Multi-Media PC).

Anyone who wishes to take advantage of the eventual deluge of MPC software, as well as anyone who wishes to have their SCSI host bus adapter and sound card combined in one slot, will need one of these cards.

Media Vision's *Pro-Audio Spectrum* is an MPC card, albeit some compatibility problems were encountered when playing games with an early evaluation version. Media Vision claims that the new *Pro Audio Spectrum 16* will be *Soundblaster* compatible, as well as backward-compatible with the *Pro Audio Spectrum*. This MPC card will have 16-bit sampling and playback up to 44 kHz in stereo, a 20-voice stereo synthesizer and a volume control (one hopes in the form of a knob on the back of the card — the earlier generation of this card required one to use a keyboard combination to alter the volume). One will be able to perform audio mixing between the internal synthesizer, digital audio, CD audio, external line-in, microphone and an IBM speaker (all except the last two items are

in stereo). Bundled software will include *Stereo Studio F/X* for waveform editing, *SP Spectrum* for MIDI sequencing, a software-controlled mixer, *TrackBlaster Pro*, four-track editing software, *Pro Speech* (a realistic text-to-speech converter), a music and sound effects library, a multi-media presentation application compatible with software such as the *Autodesk Animator* and a full complement of *MS Windows 3.1* drivers and DLLs (Dynamic Link Libraries).

The *Soundblaster Pro* is the second generation of the *Soundblaster* from **Creative Labs**, has stereo DACs, stereo analog-to-digital capability from either a microphone, CD or line-in, a sampling rate of up to 44kHz (22kHz maximum sampling rate in stereo), digitally controlled stereo analog mixer, stereo 24-voice FM music synthesizer, a built in MIDI in-

Guide to Sound Card Manufacturers

Ad Lib, Inc.:
Ad Lib
Ad Lib Gold 1000
SCSI Interface Kit
Surround Sound Kit
Telephone Answering Kit
Ad Lib Gold 2000

50 Staniford St., Suite 800
Boston MA 02114
(800) 463-2686

American Pacific Concepts:
Sound Star

1955 W. Texas St. Suite 7-170
Fairfield, CA 94533
(800) 235 3837

ATI Technologies Inc.:
ATI Stereo FX
ATI VGA Stereo FX

3761 Victoria Park Avenue
Scarborough, Ontario
Canada MTW 3S2
(416) 756-0718

Covox:
Sound Master II

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Eugene, OR 97402
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Disney Sound Source

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Mediasonic, Inc.:
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Sound Commander FX
Sound Commander M
Sound Commander Gold

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Fremont, CA 94530
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Thunderboard
Pro-Audio Spectrum

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(800) 845 5870

PC Turbo Corp.:
Sound Runner

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Walnut, CA 91789
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Roland:
LAPC-1
CM-32L

7200 Dominion Circle
Los Angeles, Ca 90040-3647
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terface, joystick port and a CD-ROM interface. This MPC sound card has been on the shelves for a while and works with *Windows 3.0*. Also, since it is compatible with the *Ad Lib* standard and backward-compatible with the original *Soundblaster*, it is compatible with the majority of games. However, **Creative Labs** recently announced a version 2 of the *Soundblaster Pro* card that is expected to use a single Yamaha YM262 stereo FM synthesis chip instead of the two mono Yamaha stereo FM chips used in the current board. The result is that developers whose products supported version 1 may find that these products will not support version 2. However, it will most likely be compatible with the *Ad Lib Gold* card which will use the same Yamaha stereo FM chip.

One rather disappointing feature of the *Soundblaster Pro* is that its designers chose to go with a 40-pin proprietary CD-ROM interface, rather than the industry-standard 50-pin SCSI connection. This is a serious drawback to those readers who have already purchased CD-ROM drives that have 50-pin connectors. If the reader has a *Soundblaster Pro* and is contemplating the purchase of a CD-ROM drive, he/she is limited to the CD-ROM from Matsushita. Creative Labs is offering a CD-ROM upgrade to the *Soundblaster Pro* that includes the appropriate CD-ROM drive.

The bundled software includes a MIDI sequencer, the Intelligent Organ, a voice editor, a text-to-speech utility, multimedia presentation software (which plays Autodesk animator files), an audio CD player, the parrot software (really a utility to create interesting 4-frame talking animations), and *Microsoft Windows 3.0* DLL and sound programs. Most of the software came with the original *Soundblaster* and although the new software is useful — especially the audio CD player — it does not look as slick as that which will come with the *Pro Audio Spectrum 16*.

The *Ad-Lib Gold 1000* from Ad Lib, Inc. will be backward-compatible with the old *Ad Lib* card and, therefore, will be compatible with most game software. This sound card promises to have the most features of any, including the following add-on daughterboards: an industry-standard 50-pin SCSI interface or the stereo sound adapter, which includes an on-board SCSI interface and a microphone, a PC telephone answering system and a surround-sound module. The card itself supports 12-bit stereo DAC, stereo sampling up to 44.1 kHz, an analog mixer, a 16-bit FM sound DAC (Digital to Analog Converter) and 20 FM stereo voices. Another nice feature is the ability to control bass, treble and balance through the control panel. This panel will also control the other options as they are added. This sound card, like the ATI cards, is software configurable and allows interrupts above IRQ 7. Another model, the *Ad Lib Gold 2000*, has all of the above features including a built-in SCSI interface. The *Ad Lib Gold 1000* card should ship at the end of April, 1992.

Sound Commander M and the *Sound Commander Gold*: These cards are similar to the *Soundblaster Pro* and the *Ad Lib Gold* respectively; however, they utilize the feature of an optional infrared remote control like their non-MPC card.

And The Winner Is...

Which sound card is best is entirely dependent upon what a particular individual is looking for and it is hoped that this overview will aid the reader on his/her quest for sound. **cgw**

Abstracts from *The Journal of Computer Game Design*

At least once per year, CGW *prints abstracts of selected articles from* The Journal of Computer Game Design *in order to stimulate thought concerning the philosophies behind and development of computer games. This year, we will look at articles from Volume 4.6, 5.1 and 5.4. The journal is published six times per year. To subscribe to the journal, send a check or money order for $30 to:*
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5251 Sierra Road
San Jose, CA 95132

The Role of Intention in Game Design

by Dave Menconi (in progress: *Victory at Sea*)

Dave's article was centered around a thesis that designers need to build the entire game design around a "purpose." In defining that purpose, Dave notes that this does not have to be some grand noble purpose, but boils the essence down to the effect the designer wishes to convey to the reader.

With that proposition stated, he argues that every design decision, every graphic and each line of code must serve that purpose. For example, "A sad game should not have happy graphics; an exciting game should not be slow." Though the advice seems rather mundane, he observes that keeping the overall purpose (i.e. effect on the player) at mind throughout the entire project will keep the developer from getting tunnel vision.

Computer Games versus Videogames

by Chris Crawford (*Patton Strikes Back*)

Chris suggested a major reason for computer games to be able to survive *in spite* of the big money lure of videogames. He observed that the computer game design environment can *afford* to be more experimental. It is much cheaper to develop and publish a computer game than a comparable videogame. Then, he explained that the real value of computer game developers to videogame publishers is their willingness "to try new and different things." Once it is proven that there is an audience for a type of game or a value in a given technological approach, the videogame publishers are willing to spend the money to acquire such a game or approach.

The irony of the situation is that there is an increasing trend for computer games to be developed with an eye toward becoming videogames. This means that they are actually costing more in research and development in order to be less likely to be successful as videogames. Chris finished his analysis with a plea for computer game developers to retain their experimental style.

The Perils of Hollywood Thinking

by Ernest W. Adams (*Hot Seat* for CD-I)

In a fascinating essay, Mr. Adams expressed the wrong-headedness of those who use the Hollywood metaphor for computer game design. He suggested that computer games that adopt movie production methods will find that 90% of the budget will be consumed by graphics and sound and only 10% on design, coding, testing and debugging. He noted that this is a higher percentage than currently employed and implied that this would reduce the quality of all non-A.V. factors in computer games.

In addition to the obvious plaint about the lack of stable hardware in the computer game medium as opposed to the film medium, he further observed that most people have not considered the very basic difference between the linearity of a film and the non-linearity of a computer game. Using continuity as an example, he observed that it is normal procedure to simply return set, props and wardrobe to their original appearance at the start of each take. In a computer game, there are so many different combinations of props, sets and wardrobe that must be tracked to prevent embarrassing mistakes that it is impossible to accomplish this "simple" task with traditional film methods.

Adams closed his article with a new suggested metaphor. He offered the formula race car. He noted that they do not use an assembly-line formula to make them; he observed that they are allowed to make the most out of the machinery without having unnecessary limits imposed on them; he commented that they are aimed at a sophisticated but small audience and he finished with the note that computer games, like race cars, are assembled by small, close-knit teams of specialists. While there are a few places where one could contend with the metaphor (computer games *are* duplicated rather than hand-built as single products; formula race cars have *competitive* limitations which restrict their performance; etc.), it is refreshing to have a new analogy to work from.

The Myth of the Mass Market

by Jon Freeman (*Swords of Twilight*)

Jon did not mince words in this article. Resonating with some of the observations concerning the mass market presented in the Software Publishers Association report in this issue (p. 20), this article expressed misgivings about the concept. Jon expressed disapproval over the willful ignorance of computer illiterates and general laziness of the populace in *both* mental and physical endeavors. His most vivid examples concerned the improbability of Joe Sixpack playing virtual reality football or fantasy role-playing when the person disdains exercise and the unlikelihood that the same Joe Sixpack who did not buy even a single paperback book in the last year would buy $60 computer games.

As he noted in his conclusion, game designers should *forget* the mass market. Instead, they should concentrate on the market that they already know is present. **cgw**

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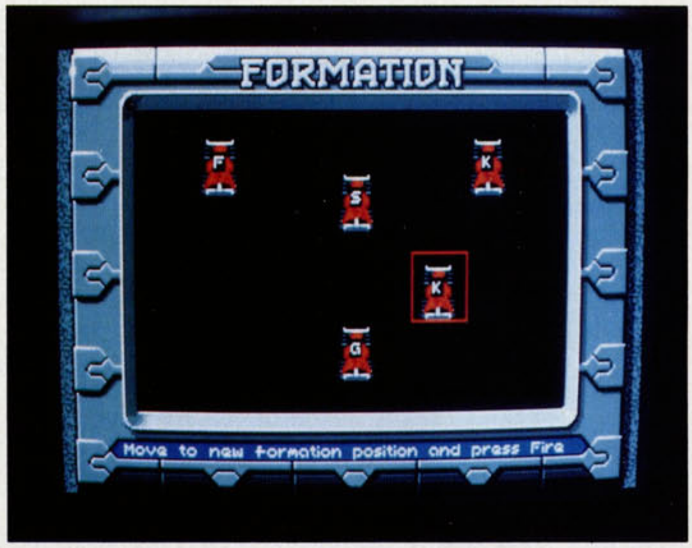
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Men of (Twisted) Steel

Ocean's Wild Wheels *Takes a Good Turn*

by Alan Emrich

TITLE:	Wild Wheels
SYSTEMS:	IBM, Amiga
# PLAYERS:	1-2 (network only)
PRICE:	$49.95
PROTECTION:	Document Look-up
DESIGNER:	Red Rat Software Team
PUBLISHER:	Ocean Software, Ltd.
DISTRIBUTOR:	Electronic Arts San Mateo, CA



Ah, the British do love their "dark future games in which there is plenty of violence and things die a lot," as one industry wag is so fond of saying. Perhaps, however, *Wild Wheels* from the U.K.'s **Ocean** software house is a "bright spot" in the trend of dark future games, driving on the premise that super-efficient, environmentally clean solar and electric cars did everything the old petrol-burners did — more cheaply — and so they caught on. Unfortunately, they lacked the thrill, speed, excitement and raw power of the recently extinct gas-guzzlers. Some enterprising person sold the U.N. on a new international sport that would finish off the banned oil-eaters and thrill crowds at the same time. Voila, *Wild Wheels*.

A cross between soccer (well, perhaps *rugby* might be more accurate) and a demolition derby, two teams of five specially equipped cars take to the arena and attempt to move a huge metal "power ball" into the opponent's goal. Only the player's own ("strike") car has any real control, with the four other cars on one's team being computer-controlled drones that can be assigned one of four tasks: Guards (to defend one's goal), Fetchers (to get the ball and pass it to one's strike car), Blockers (to protect one's strike car) and Killers (to hunt out the opposing strike car).

Out of the Wreckage...

Each of these drone vehicles has but a single life to give for its sport, while the strike cars have four lives (when the last is extinguished, the game is over). Thus, by the time each side is down to its last strike car, it is usually a one-on-one duel (the drones having died along the way). Death occurs through the irreplaceable loss of "impact points" on one's cars. Unfortunately, there is no gauge for telling which vehicle is fresh, crippled or anywhere in between. Player's strike cars must worry about tire wear and running out of gas (which produces instant death), but these problems can be remedied during the play of the game.

The point-scoring system is as wild as the game's title suggests. Points are scored for "kicking" in goals. The closer one's strike car is to the opponent's goal when the ball goes in, the more points scored. The down side, however, is that crashing into the opponent's goal destroys the strike car! Many a charge to the goal has met with such a tragic end.

Points are also scored for having the ball spend more time on the opponent's side of the arena and for destroying their vehicles. Naturally, negative points are assessed for destroyed and damaged vehicles belonging to one's own team.

...And Onto a PC

Where the real rub of play is, though, is the ever-changing arena in which *Wild Wheels* is played. The furious action and "special tiles" that emerge and vanish on the playing surface



give this game a *Projectyle*-like quality of excitement that can reduce the most sophisticated adventure or war gamer into a stark raving arcade game enthusiast. Oil slicks, ice patches and electronic tiles grow to size and then shrink back again, creating monumental driving hazards (as if opposing cars trying to ram one into extinction weren't enough). Special tiles can also be driven over by one's strike car to receive gas, tires, spare parts (which increase one's score) plus bonus items required to drive some of the many more powerful vehicles that only impressive scores and the correct item will afford one.

That's the gist of the game right there. Winning isn't everything, it's only a step on the ladder toward driving an even more impressive vehicle in the next game. Players start with car models like the Shrimp and Tadpole and work their way up through several models to the likes of the Leviathan and the Colossus. Toward the high end of this "food chain," cars acquire missile-launching capabilities, and the game evolves into something more akin to *Car Wars* in the arena. Fortunately, shots are limited, so what is basically a game of violent maneuver and scoring remains essentially so, despite the odd pot shot by missile-firing marauders.

From the Press Box

The playing screen quickly becomes second nature as part of the interface and the action can be viewed from three different "chase car" ranges or an overhead camera. With either keyboard or joystick input, the latter is likely to be the choice of preference. While network play is supported for a head-to-head game, it is only available for the IBM version and then only through NETBIOS.

Still, *Wild Wheels* is a great arcade game with all of the pulse-pounding, joystick-jiggling, wrist-wrecking game play that a good "computer sport" can generate. A clear level of thought has been given to the gameplay aspects of this product, which makes it transcend the British stereotype lampooned at the beginning of this article. Thus, *Wild Wheels* is, indeed, a worthy addition for the thinking arcade-o-philes among us. **cgw**

Riftwar Legacy

Raymond E. Feist Talks About the Upcoming Computer Game

by Craig E. Engler

In a world where CRPGs inundate the software shelves and series often contain five or more sequels, it is difficult for even a prominent gaming house to bring out new, and successful, titles. One way to sell a lot of games is to make them innovative, like *Eye of the Beholder*, or to create something that's just downright fun to play, like *The Secret of Monkey Island*. The problem is that there's only so many times you can change the guise of what is obviously an adventure game. So, innovation in the today's entertainment software industry frequently consists of porting games to a fresh medium rather than designing something new.

When **Dynamix** decided to create a new CRPG with the potential to bloom into series stardom, they called Raymond E. Feist, a well-known fantasy author whose Riftwar Saga books have sold over a million copies worldwide. With that kind of a fan base already installed, a game by Feist would be practically assured of making a good showing in the market. Of course, the logical thing to do at this point would be to approach Feist with an offer.

"Originally they called me and asked me, would I be interested in writing a game for them?" Feist observed. "It took me about a half-hour on the phone to convince them they couldn't afford me."

Feist is not only a professional author, but is very aggressive with regard to contracts. Hence, he makes a good deal of money and would have had to charge Dynamix around $1,000 a day to hire him for the project. And *that's* because he liked the idea. If he *didn't* want to do it, Feist revealed that he would have had to charge them twice that. After **Dynamix** realized Feist's pen was a bit out of their league, they settled for licensing his Riftwar books and the world the books place in, Midkemia. They also had to sign a contract with Midkemia Press, a company owned by two of Feist's college friends.

With the licenses in hand and Feist as a consultant, **Dynamix** began to create their first game, tentatively titled *Riftwar Legacy*. It's based on the book, *A Darkness at Sethanon*, the second to the last book of the series (as it currently stands). The game itself is more of a sequel to that book rather than just a plot rehash. "What they're doing is filling in the cracks," Feist pointed out. "The first story takes place between *A Darkness at Sethanon* and *Prince of the Blood*. The idea is that it's a game that will attempt, in a gaming environment, to approximate a lot of the qualities of the novel."

When *Riftwar Legacy* opens, Feist revealed that characters from *A Darkness at Sethanon* will appear with various tasks to perform. The overall goal of the game is to prevent a villain from getting his, her or its hands on the lifestone, a conglomeration of the old and powerful inhabitants of Midkemia who had godlike powers and amoral tendencies. Feist commented on the variety of subplots and mini-adventures throughout the game, as well as there being several paths a gamer could feasibly take to complete the adventure successfully. "Ultimately, what you end up with is a game where you could probably play it two or three different times and end up with two or three different endings and still win the game," he said.

During *Riftwar Legacy*, players operate various characters that have different options in different situations. For instance, Feist said that if a bad guy walks into a room, each character will react differently depending upon which subplots he/she has become involved in throughout the course of the game. One of the reasons Feist said he liked this approach is because the game becomes something one plays to *experience* rather than something that is played to win.

Without being directly responsible for writing *Riftwar Legacy*, Feist admitted that he had ended up having a lot to do with the game. Spurning the idea of an adventure in which dungeons and monsters exist for no other reason than exploring and fighting, Feist said he tried to make sure the game, like good fiction, made sense. For instance, no one will find a dragon waiting behind a door in *Riftwar Legacy* if there was no legitimate way the dragon could have gotten there.

"One thing a good writer can do is keep the plot making sense, while the game designer is more concerned about other things," Feist suggested.

On several occasions Feist said he had to rework the game's plot so things the game designer had characters doing would be for legitimate reasons. There was one part in the game in which two major characters know about each other and are essentially in cahoots, and there's no way that could have happened, Feist said. After a 20-minute phone conversation with **Dynamix**, he restructured the plot to introduce a third minor character and then the scene made sense. Feist said he worked with **Dynamix** closely, going through and taking out all the big, red, flashing signs indicating plot flaws. "By the time things were hashed out, there is a very good reason for everything," Feist explained. "If we're lucky, the player won't notice any of this."

Sounding very pleased about his deal with Dynamix, and he wasn't talking about the money, Feist said people at the company were both enthusiastic and intelligent. If all goes as planned, he said **Dynamix** hopes to introduce the game in November, to coincide with the re-release of the *Riftwar Saga* in spiffy, new hardback editions from Bantam/Doubleday.

As for future products, Feist believes that possibilities are wide open. "You could set up a scenario where something that happens in one of my novels could be going in another part of town while you're doing something else," Feist said. "You can have something that's the equivalent of a novel in scope. Or it could be one night. You can go from very specific to very generic."

Although Feist doesn't have any immediate plans to expand his role in the CRPG world, he said he has enjoyed working on the **Dynamix** game. "I think it's fun," he confessed. "I make my living writing books, so this allows me to kind of look off on the sidelines and see a creative endeavor that I have a hand in." The only other comment Feist had to make about the deal was somewhat tongue-in-cheek. "They will make wonderful Christmas gifts," he said. "Buy many of them." **cgw**



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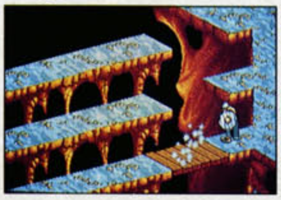
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No Jokers, Please

A Previewer's Guide for Solitaire's Journey

by Alan Emrich

One thing that must be admitted about the newcomers at **QQP**, they know gameplay! Their first two games, *The Perfect General* and *The Lost Admiral* have both received deserved acclaim for their excellent designs as *games*. While neither is exactly "revolutionary" or "breakthrough" in design or programming, they are both fine examples of what a solid *game*, translated into a computer medium, can achieve. Now, with their third and latest effort, QQP can almost be expected to acquire the type of brand loyalty associated with long-standing companies like **Sierra** that have a customer base of game-loving enthusiasts who will immediately associate their label with the kind of games they enjoy.

What's the Deal?

Admittedly, this wargame-mongering journalist was a bit crestfallen when he heard that the next game from QQP would *not* be another wargame. In fact, the initial enthusiasm mustered for another computer program dedicated to solitaire card games was roughly equivalent to being told he would have to have his teeth cleaned. It's nice, but not preferable. Still, with a QQP game, it shouldn't be unreasonable to hope for something extra and *Solitaire's Journey* is *not* disappointing. There is extra, all right, and to spare!

Pick a Card; *Any* Card...

As a new computer game publisher, QQP has not been averse to inspecting outside submissions for (more or less) immediate attention and consideration for publication. Bruce Williams Zaccagnino (President of QQP) has already weeded through dozens of game proposals since his first two products debuted, but when Andy Visscher flew his solitaire card game program by, Bruce saw that "the QQP touch" could make it a winner.

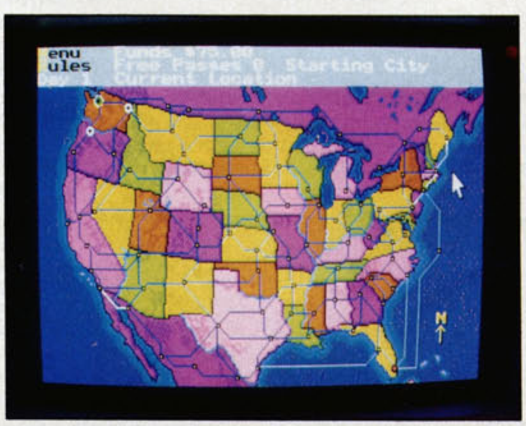
As submitted, what was to become *Solitaire's Journey* consisted of 105 different solitaire card games. Compare this to **Sierra**'s *Hoyle Official Book of*



Games, Volume 2: Solitaire and its 28 games or **WinWare**'s *Deluxe Solitaire For Windows* with 40 games and it becomes clear that there is a lot of solitaire mileage to be made off *Solitaire's Journey* (more on mileage and "journeys" in just a moment). What is particularly pleasing is the large number of two-deck solitaire games, all of which were new to this critic.

52 Cards in 25 Words or Less

What is truly amazing is the way the rules are abbreviated for quick play. Though the preview copy examined for this article included no documentation whatsoever, none was required because of the complete on-line instructions. Each solitaire game opens up with the cards dealt out on the display (different backs can be selected for the deck) and a quick click on the Rules heading of the menu bar brings up a window with a



"One picture *plus* 25 words" description of all that is needed to know to play the game. Once such abbreviations as "Tbl" for tableau and "Stk" for stock are learned, players will cease to need to read the three to five paragraphs of text that comprise the "long" version of the rules. What this element gives *Solitaire's Journey* is a play velocity that actually multiplies its enjoyment level, because more games can be played in a single sitting without fatiguing the human player. Combined with a simple point-and-click interface, a crisp, clean graphic look plus the promised major sound card support (which, alas, was missing from the preview copy) and all the elements required for up-to-date family enjoyment are there.

Card Counters, Take Note

Each game of solitaire is "scored" similarly, by playing cards to the "foundations" and building them up (or down) by suit (or other method — there are simply too many variations to list). Each card played to the foundation scores a point. Thus, a perfect score is obtained by reaching 52 points per deck used in the game. Up on the menu bar, however, is a button marked "history." It is here where players will see their personal history in playing this game, including their last 25 games played, their overall average, their average against others, etc. This screen, reminiscent of the graphs used in *The Lost Admiral*, also tells the players what an "average" score for that game is (based on over 10,000 games played by QQP's numerous playtesters). By comparing how one does against *this* score, a player can test their mettle versus the "odds."

Playing Again by Re"Quest"

If *Solitaire's Journey* were just the 105 fine solitaire games in a single package, it probably would find its niche in the marketplace. However, as **The Avalon Hill Game Company** is known for putting their "touch" upon boardgames to improve them, so, too, will QQP be known for adding like touches to Andy

Visscher's game submission. Rather than having 105 loose solitaire games just "rattling around" in the box, QQP has added two different kinds of "campaign games" for linking them together. It will take a stretch of the imagination, but here goes....

The first style of the solitaire campaign games is the "quest." Here, players find themselves in a room that leads to others and where, ultimately, the exit must be reached. To exit, however, gold bars must be accumulated (earned by playing games of solitaire) and other items (such as keys) must be found. When entering a room, players will see how many gold bars are being played for, plus the three games that the player can choose from and the points required in each of those games to earn the full allotment of gold bars. Playing a game over or under the score to be challenged will increase or decrease the player's gold income. While the idea of a "quest" is, to be sure, a difficult one to associate with playing solitaire, it does make for both a pleasant diversion and four different quests (with ascending difficulty) are provided.



Road Games, Solitaire Style

The second type of campaign is the "journey" (of title fame). Here, the player assumes the role of "solitaire master," playing in tournaments in different cities throughout North America. The object is for the player to get from an original location to a distant location by purchasing "bus tickets" with both one's original funds and the additional money to be earned in solitaire tournaments along the way. Poor play will cost the player money as sponsors pull out (leaving the player to pick up room expenses), while beating "sol" completely in a game will garner a player a free ticket to the next city. With this slightly more plausible premise, this reviewer took to the four journeys like a shark takes to prey.

52-Card No Peeky

Perhaps the best thing that can be said about *Solitaire's Journey* is its high kibitz value. No matter where this jaded gamer found himself playing this game, people gathered around the computer and suggested their own moves and playing tips. One must acknowledge that's a real plus for a game and bow to that quality. Despite the "hokey-ness" of the campaign games included, they are certainly playable and make mastering all of the 105 individual games more desirable. It's impossible to count the hours that will be spent on such a quick, clean, playable diversion as *Solitaire's Journey*. However, this previewer would recommend a "Boss" button be included for hiding the game on a moment's notice (grin). **caw**

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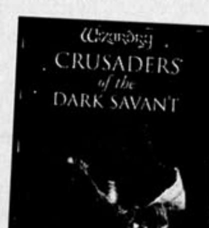
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COMPUTER WARGAMING WORLD

Computer Wargaming World is published twelve times a year as a free supplement in ***Computer Gaming World.***

II Samuel 22:35

Broadsides & Gripeshot

by Alan Emrich



Last issue, we went over the debate about wargames without artificial opponents, and some very interesting arguments on both sides of that issue were presented. Apparently, one individual, who has designed two such original computer games, has already seen this as an opportunity to submit them here for inspection (see: New Business). To begin this issue, however, let's examine the end result of the rallying cry for our "Opponents Wanted" Section.

Old Business: Reach Out and Crush Someone

When the rallying cry was raised for people to either place an ad in our "Opponents Wanted" section or to call someone who did, we didn't know what to expect. Now, while we haven't gotten the FBI to tap any phone lines to see if our readers are actually placing more calls, there *has* been a marked increase in the number of individual listings in the "Opponents Wanted" section. Again, I urge everyone reading this to call and connect up! These computer gamers have made the first move; now, it's *your* turn.

For those who have wondered exactly how the Opponents Wanted listings work, here is an explanation in brief:

Ads from individuals run *one time*, but we will gladly run others from that same individual if we are sent another postcard/feedback card/fax/e-mail, etc., with another ad on it. It is a free service, so the price is certainly right. Ads for the various Networks and BBSs are picked up and re-run each issue, but often there are changes and additions to them, so jaded readers might want to give these "old" ads another look to see what's new in them. The listings in each section (networks, BBSs and individuals) are presented in ascending order by area code.

New Business: New Games

It's always exciting to receive an anticipated wargame. With *Global Conquest*, however, it was even more exciting for me when *others* received it. That's because it is another Dan Bunten modem-play special and, as a playtester, I couldn't wait for everyone else to get it so that the opponent pool would be larger than just the playtest group. Now that it's released, let the games begin....

Players of *Global Conquest* will want to practice up, too. This magazine and **Microprose** will be co-sponsoring a *Global Conquest* tournament soon on the CompuServe network. For details on this event, be sure to read the CompuServe listing in the opponents wanted section on page 114 of this issue. Connectivity lovers will also be pleased to hear that **Sierra** has finally launched their long-anticipated multi-player *Red Baron* on The Sierra Network. For details, see *their* ad in the Opponents Wanted section.

"Games Sans Brains" Continues

Steven D. Jones (of the appropriately named **SDJ Enterprises, Inc.**) is more than just a new advertiser (see page 116). He has created a couple of interesting "labor of love" wargames and self-published them. While they have only recently hit this desk, their strategic scope, ease of learning and short playing time have been great for me, simply because entire campaigns can be completed during a lunch break. Granted, both *La Grande Armee* and *Big Three* are of "shareware" quality and include no AI. Still, though I regularly play *no* shareware games, I will admit to spending several fascinating hours playing both sides of these games over and over again. Reviews of these and other wargames will be forthcoming, as will more replays and strategy articles. Onward!
CGW

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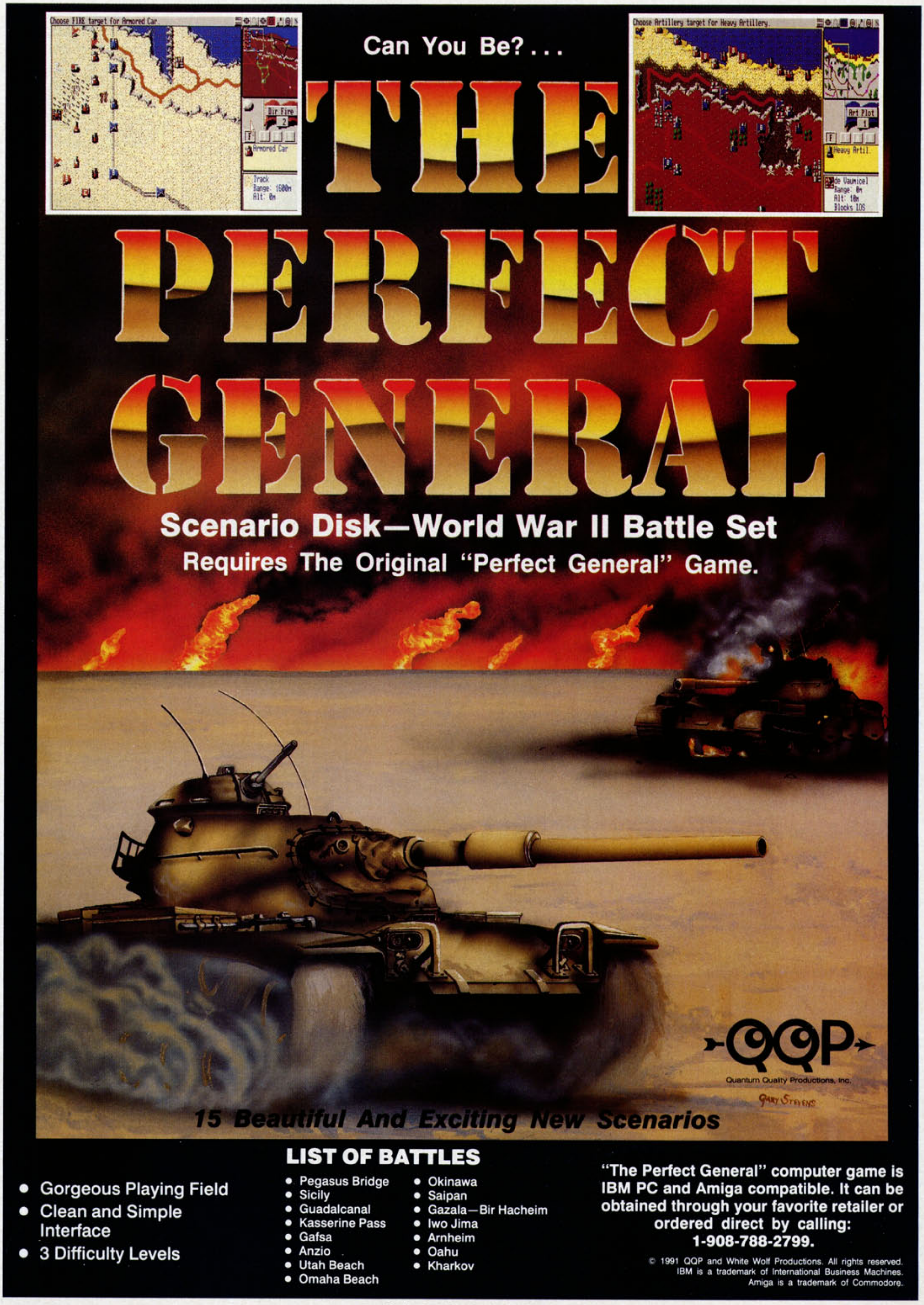
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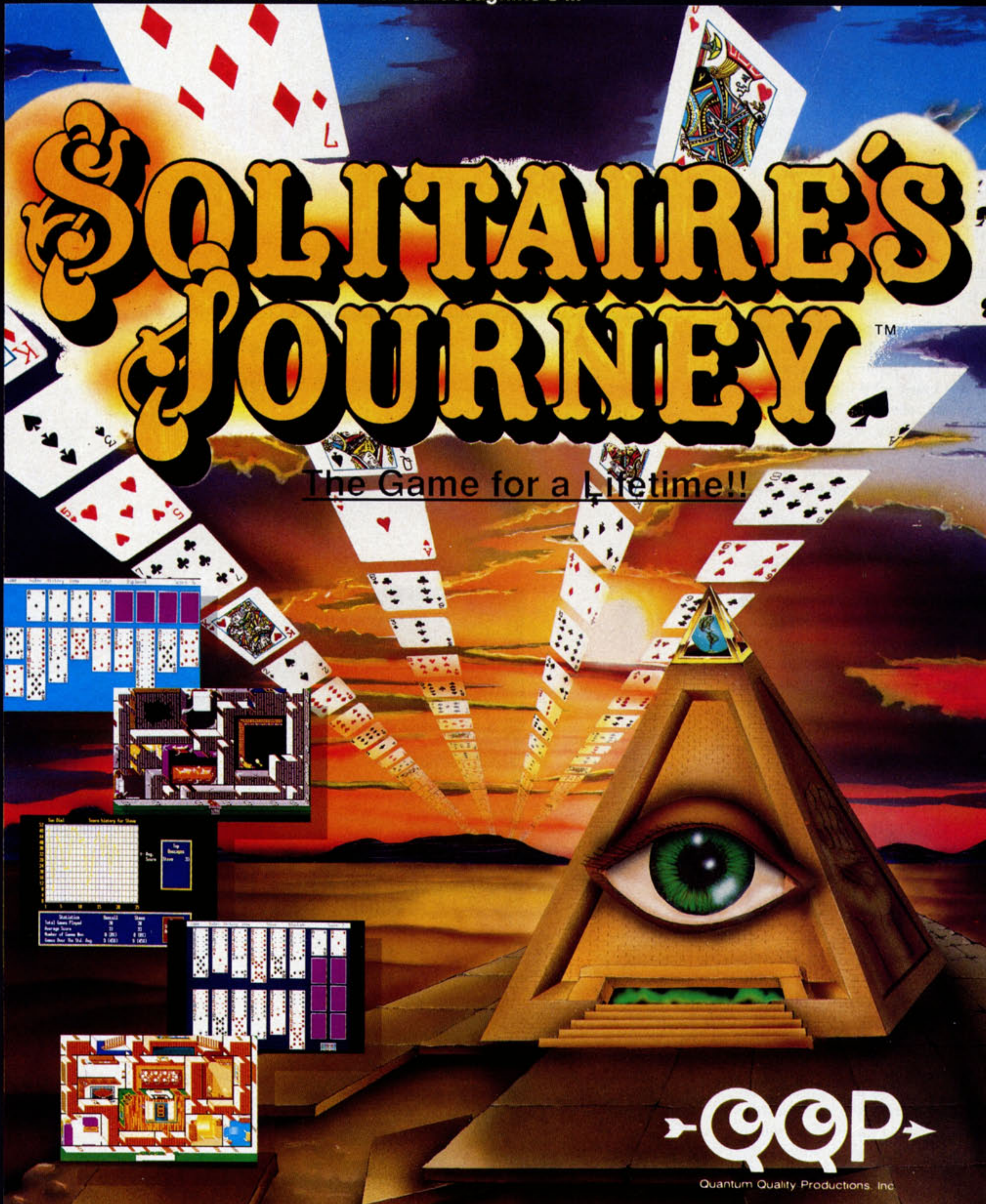
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More Tips on Winning "The Good War"

Tactics for The Perfect General WWII Disk

by Richard Savage

[Ed: Last issue, Richard Savage outlined the advantages for players who purchase the World War II scenario disk for The Perfect General *and provided some tactical notes for the "Okinawa" scenario. This issue, he issues tactical advice for the "Gazala-Bir Hacheim" and "Anzio" scenarios.]*

Precision in the Desert (Gazala-Bir Hacheim)

The Gazala-Bir Hacheim scenario is ten turns long (14 turns when one plays the long game). After playing this scenario, everyone will know why Field Marshal Erwin Rommel called this battle "The Cauldron." Both sides receive large amounts of points for buying all the forces needed to get the job done, but just as in real life, armor will predominate.

The defender assumes the role of the British and receives 200 (250 in the long game) points. The British may *only* purchase heavy tanks, reflecting the fact that, historically, their tanks were *Matildas*. These tanks were large and slow, but heavily armored. The attacker assumes the role of the Germans and receives 300 (350 in the long game) points and is restricted by not having any heavy tanks. The limitation to light and medium tanks is supposed to represent the historical use of *Panzer III*s and *IV*s that were prevalent in the desert at the time. They weren't as heavily armored as the *Matildas*, but were faster and more maneuverable. By far the biggest bonus the German player receives, however, is the ability to buy self-propelled artillery (which is denied to the British).

The attacker sets up west of the defensive line. The victory condition for the attacker is simply to garrison one victory point objective. The defender sets up east of the defensive line and must defend 24 victory point cities, forts and airfields against the attacker's onslaught.

The wise general will pay attention to the unique quality of the terrain in this scenario. Desert acts as clear terrain and does not restrict movement. Also, the book states that forts cost one-half movement to enter, but this reviewer's experience has been that it takes the entire movement allowance of a unit to enter a fort. Further, **QQP** completely omitted the fact that barbed wire is present in this scenario and provides a major obstacle for the Germans to overcome, as well as costing one-half movement point to move through.

Weather also plays a major factor in this scenario. The first turn is a night turn, neither allowing direct fire nor movement next to enemy units. Also, there are a couple of turns of fog and rain that, of course, restrict visibility. There is no mention of this in the documentation.



Tactical Considerations

Attacker: The attacker will have to be careful in making the initial purchases, as well as in placement. While this is true in most games, it is perhaps more vital here than in many others. The reason for this is that once one's forces are committed to a certain area, it is tough to change objectives because of the vast desert area depicted in this scenario. The German attacker will have to attack all along the line, if for no other reason than to knock out defensive strongpoints and replace the garrison units with offensive units in order to receive the victory points. Nevertheless, it will be necessary to concentrate on one point as the *schwerpunkt* (German for 'stress point') where the attacker intends to deliver the breakthrough. The book recommends starting a lot of units from the far south edge of the map, as Rommel historically did. This is not a bad idea, but can be countered by an astute British player. A breakthrough in the north is possible, with the use of engineers to remove mines or the unscrupulous deployment of infantry "mineblowers" (brave unthink-

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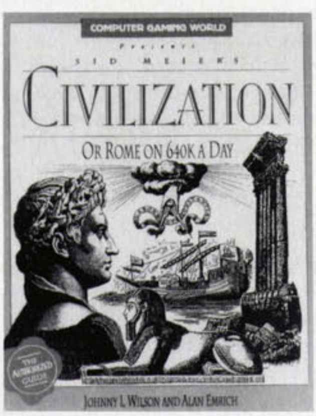
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The SimEarth Bible

by Johnny L. Wilson   Osborne-McGraw Hill $14.95

I salute Johnny Wilson for giving us a new kind of book about the earth and the terrestrial planets.
- James Lovelock

The SimEarth Bible is a winning strategy guide to SimEarth, as well as a fact-filled guide to Earth sciences and theories of the balance of life on the planet. Wilson discusses the common mistakes you may be tempted to make and encourages you to examine new approaches to planetary problem solving.



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The Official Guide To Sid Meier's Railroad Tycoon

by Russell Sipe   COMPUTE Books $12.95 U.S. $16.50

The best book on Railroad Tycoon. If you love Railroad Tycoon get Russell Sipe's book.
- Jerry Pournelle, BYTE Magazine

Sipe's book will add immeasurably to your enjoyment of Railroad Tycoon.
- Neil Shapiro, PC Games Magazine

Here are just a few of the things you'll learn: get the answers to puzzling economic forces in the game; learn to defeat each of the tycoons; manupulate the stock market to your advantage; and learn optimal building and survey techniques.

The SimCity PLANNING COMMISSION HANDBOOK

by Johnny L. Wilson   Osborne McGraw-Hill $14.95

Each time we read this book we learned something, because it explains the theory behind the game and doesn't just list one-two-three hints.
- START Magazine

Reading the draft for The Sim City Planning Commission Handbook has been quite educational and entertaining for me, but also strangely familiar, as I go through the discovery process once again.
- Will Wright, designer of SimCity

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ing souls who march onto mines for the greater good of their country). Wherever one chooses to make the assault, it is advisable to make sure that the majority of self-propelled artillery and reconnaissance cars are easily accessible. One will have to "saturate" the area at which the player intends to make the breakthrough with a heavy concentration of artillery, and use the recon cars to go like the devil toward the heavy artillery that the British player is sure to have placed as far to the east as possible. One last word of caution: the desert is a big place, so one should try to make one's movements as unpredictable as possible. Heading in a straight line is sure to engender a "wall of fire" created by three or four heavy artillery barrages placed by the British on the previous turn. Keep the defender guessing, and use speed and armored mobility to its fullest.

Defender: The British player should put bazookas on all the fortress hexes facing the German front line. Make the German pay for every one of them, even if it means only weakening a medium tank by 33%. Mines are a very important part of the British defense and five or six strategically placed mines along the coast are a must. Put two mines on the northernmost part of the map and place one on the main coast road running to the cities to be defended. One should make sure that the mine blocks the whole road, so nothing can get around it. There should be sea on one side, and unclimbable escarpment on the other. One should purchase four heavy artillery units and place them in the rearmost town hexes — with one out in the open, but sheltered by escarpment. One should purchase plenty of heavy tanks and place one in the Bir-Hacheim box. This will usually be enough for the defender to blow two or three light German tanks sky-high. Finally, from the Bir-Hacheim box down to the southernmost edge of the map, one should place an infantry or bazooka unit in every other hex. This will stop the German from making a big breakthrough on the first night turn. All of these units will be destroyed during the following morning turn, but they should be worth the sacrifice. Later, when reinforcements become available, one can always analyze the situation and purchase units that are custom-fit to the current needs. For example, if the Germans have broken through, eight heavy tanks, appearing at the right place, might turn the tide. Remember, as the defender, one's entire philosophy should be delay, delay, delay.



Victory by the "Boot"straps (Anzio)

The Anzio scenario is 12 turns long (16 turns long game). In this reviewer's opinion, this is the biggest map of all the scenarios. It is also unique in that *both* players are playing offense and defense at the same time. For the German player, it is a game of desperately trying to hold off the Allied forces driving up from Cassino, while simultaneously trying to push the Allied forces in the Anzio beachhead back into the sea. For the Allies, the exact opposite applies. Anzio must be held, at all costs, until the "cavalry" arrives from Cassino to hook up with them and drive on to Rome. This makes for a perfect gaming situation and this reviewer believes that it will be the most played and discussed of all the scenarios in the WWII Battleset.

In the Anzio scenario, the Allies, as the attackers, receive 200 (in either game) points for placement east of the Gustav Line and an additional 100 points within the Anzio beachhead. Meanwhile, the defenders, the Germans, set up in the remainder of the map, with 27 victory points in the set-up area.

To make things even more challenging, the attacker receives 20 additional points per turn along the eastern and southern map edges, as well as an additional 10 points per game turn at Anzio, as long as it is held. The defender recoups 20 points per turn in Rome.

Tactical Considerations

The German player has to walk a fine line between offense and defense. He has to commit enough forces to delaying the Allied player driving up from Rome, while retaining enough units in Rome to push straight into Anzio. This scenario will probably have to be played a few times before the "perfect" combination of offense and defense can be choreographed. Just remember to use mines wisely to stall the Allied player coming up from Cassino. A few well-placed light artillery units can also disrupt the roads and destroy key bridges, forcing the Allied player to waste precious time. Just remember that the longer the Allied player takes to break through, the better chance the Germans have to capture Anzio.

The key for the defending player is Anzio. He must hold onto it for even a *chance* of victory. Mines should be laid at the river crossing to the north and every town and clump of trees should hide a light tank or bazooka team. A heavy artillery unit is expensive, but positioned in Anzio itself, often can hold the enemy at bay long enough for reinforcements to arrive. Remember that the defender gets 10 points of reinforcements per turn at Anzio. A good tactic is to use six of these on two light tanks and then, next turn, with fourteen points accumulated, one can buy a self-propelled artillery unit. If the player thinks he has a good enough defense to keep the Germans from driving south from Rome, he can then assemble a small force to drive along the coast to meet up with the Allied units driving up from Cassino. **cgw**

Circle Reader Service #68

Ships, Scenarios and Utilities

More Action Stations! Fun

by Bob Proctor

TITLE:	Action Stations! Scenario
SYSTEM:	Amiga (V. 3.2), IBM
PROTECTION:	None
PRICE:	$21.95
DESIGNER:	Alan Zimm
PUBLISHER:	RAW Entertainment League City, TX



In an age of increasing specialization, *Action Stations!* (*AS*) is an example of a highly specialized wargame. It simulates naval surface combat — no submarines and no airplanes, just guns and torpedoes. Within that narrow scope, it has wonderful variety and a wealth of detail. Dates range from 1920 to 1945; ships range from PT boats to super battleships; guns are rated for accuracy and rate of fire. In addition, damage control, national differences, fatigue and crew experience are all taken into account.

In this reviewer's opinion, no other game handles the limited intelligence of a sea battle as well as *AS*. All of the visibility calculations — reckoning target size and range with adjustments for radar, darkness, smoke and squalls — are handled by the computer. One sees only what the on-ship lookouts could be expected to see. Hence, the use of searchlight and starshell is critical in night battles.

AS has been around for a while and has a loyal following. This is not a review of the basic game but of the two-disk expansion module from **RAW Entertainment**. It adds something for every *AS* devotee. Those who just like to replay history will find 13 new scenarios to try. All of them are interesting from both sides, even played solitaire. For those who like random encounters, there is a new version of the GENERATE program. Even more significantly, those who like to create their own scenarios will find 28 new ship classes. This is particularly welcome as there is no utility to create ships. As a bonus, 3 French battleships and the *Hood*, all of which appeared in *AS* with minor data errors, are included here in corrected form.

The New Scenarios

Historical battles:

Mers-el-Kabir — BB vs. BB, day. After the fall of France in 1940, the French fleet escapes to North Africa. The British, afraid the French ships will fall into German hands, attack them in the harbor.

Cape St. George — DD vs. DD, night. A delightful tussle in The Solomons; five US DDs intercept a Tokyo Express of 5 DDs. The victory tends to be decisive but with an equal chance to go either way. The USN wins easily with the right combination of radar, starshell and gunnery; the IJN wins easily if they can get hits with their Long Lance torpedoes.

The Bay of Biscay — CL vs. DD, day. Two British light cruisers against 11 German destroyers. The action takes place in 1943 and in *very* rough weather. The larger ships make better gun platforms in the rough seas, but they had better not let the swarm of bees get too close!

Surigao Strait — BB vs. BB, night. The southern IJN force wanders into an ambush! This is a lopsided battle, tough for the IJN to win. It makes a good intro for a beginner learning to handle lots of ships (take the US) or as a solitaire challenge for a very experienced player (take the IJN and try to reach Leyte Gulf).

Hypothetical Battles That Could Have Happened

North Atlantic Sweep — BB vs. BB, day. Very early in WW2, a combined British/French force with the *Hood* and the *Dunkerque* search for a raider force including the *Scharnhorst* and *Gneisenau*.

Java Sea — CA vs. CA, day. A variation on the Java Sea scenario that comes with *AS*. One can see what might have happened if the *Houston* and *Perth* had no prior damage and if the Allied deployment was improved.

ABDA Strikes Gold — CA vs. CA, day. A hypothetical scenario set in early 1942. The combined American-British-Dutch-Australian fleet (basically the same ships as in Java Sea) surprises a Japanese amphibious force while an invasion is in progress! The IJN covering force is more powerful but is scattered at first.

Operation Domino — BB vs. BB, day. A could-have-been battle off the coast of Norway in 1943, the *Scharnhorst*, with cruisers and DDs, tries to slip north while the *Renown*, with cruisers and DDs, is out looking for her.

Samar I — BB vs. BB, day. This scenario supposes that Halsey detached six BBs to intercept Kurita's force before it can reach Leyte Gulf. Pits the *Iowa* and the *New Jersey* against the *Yamato* and *Nagato*!

Samar II — BB vs. BB, day. Another variation supposes that the six old BBs from Surigao Strait have to intercept Kurita's force; they are low on ammo from the battle the previous night.

Hypothetical Battles in Alternate Universes

Great Pacific War — BB vs. BB, day. What if there never had been a Washington Naval Treaty and the US had gone to war with Japan in 1932? This is a chance to experience a major fleet action before carriers, a Jutland in the Pacific! There are many classes of ships (like the *Lexington* class battle cruisers) that were never built because of the treaty.

North Sea — BB vs. BB, day. WW2 is delayed five years and the German navy is able to complete more of its construction program of super-*Bismarcks*! Now it's 1945 and 10 German BBs meet 16 British BBs for control of the North Sea.

Black Sea Invasion — BB vs. BB, day. WW2 begins with the German attack on Russia somewhere around 1944 or 45. The *Bismarck* and three improved pocket battleships protect an invasion fleet from the Russian Black Sea force.

The New Utilities

ADD-SWAP is a quick and easy way to modify existing scenarios. It allows one to add or delete ships to a scenario or to substitute one class of ship for another. It is a simple and quick way to get a little variety. For example, if the gamer desires to see what might have happened if the Germans had completed one of their super-battleships and sent it into the Atlantic, it is possible

to modify the "Battle of the Denmark Straits" scenario, replacing the *Bismarck* with an H-44 and replacing the *Hood* and *Prince of Wales* with *King George V* or even the *Vanguard*. Be sure to replace the *PoW*, even though it is already a *KGV* class, because its crew quality and reliability are greatly degraded in the Denmark Straits battle to reflect its unfinished state in 1941.

GEN33 is a replacement for the GENERATE program that came with *AS*. This program lets the player specify two nationalities and then build a scenario drawing ships at random. The size of the fleets and other variables are completely customizable. GEN33 works just like the original except it allows one to select a fleet data file for each side, instead of always using the data file used by the scenarios.

The third new utility is DDFGEN33, which creates the fleet data files used by GEN33. One can have up to 26 fleets, designated A to Z. Using this utility, it is possible to create fleets for a single nation or for several nations in a specific period. For example, one could build files for the USN and IJN as of June 1942, so that there will not be any 1925 battlecruisers or "super-*Yamato*" types appearing. Or, one could build files for the navies of 1937 as they might have been with no treaty limitations and not get any WW2 designs. One could even create the French Fleet of 1928 with German ships received as reparations for WW1 and pitting them against the Italians.

New Ships	USN	IJN	RN	Kriegsmarine
BB	*Mississippi*[1] *Tennessee*[2,3] *Tennessee*[1,4] IV-2[3,5,6]	*Owari*[3,6] S-65[3,6] Super *Yamato*[7]	*Lion*[6,10] *Vanguard*[10] *Incomparable* *Renown*	H-44[7,16] Cruiser-P[17]
BC			BC-1921[11] *St. Andrew*[6,10] *Courageous*[12] *Furious*[12,13]	
CA	*Baltimore* *Des Moines* *Wichita*	*Furutaka*[3,8] *Nachi*[3,8] *Mogami*[9]	*Surrey*	
CL			*Dido*[14]	
DD	*Sumner*	*Fubuki*[3,8]	*Hunt*[15]	

[1]Used in Surigao Strait. [2]Pre-Pearl Harbor. [3]Used in 1932 scenario. [4]Post-Pearl Harbor. [5]1920s design. [6]Never built. [7]20-inch guns. [8]As originally built. [9]As modified with flight deck in 1944. [10]Late WW2 design. [11]Canceled by treaty. [12]WW1 class. [13]As designed. [14]As modified in 1942. [15]Later modifications. [16]Super-*Bismarck*. [17]Improved pocket battleship.

Debriefing

No matter how much one enjoys the basic *Action Stations!* program, this new module offers something to extend every wargamer's enjoyment of the product. It does not improve the graphics quality or the user interface of the original, though; for that gamers will have to wait for *Fleet Commander*, now in development. At least wargamers have something to entertain them during the wait! **cgw**

Reach Out and Crush Someone

Those wishing to place their own (free) ads need only send us a postcard (or use the *Notes* section of the reader response card), letter, FAX or E-Mail, etc. Generally, we run them only once, so send another to keep your name listed! The ads themselves should serve as reasonable examples as to how to write your own. However,

- Include a brief description of the types of opponents and games you are interested in playing. Games being played other than "direct by modem" *can* be listed (trading save game disks, meeting on a BBS service or even face-to-face).
- At least one (possibly more) telephone number(s) must be included. *Do not forget the area code* and mention whether they are Home, Work or Modem numbers.
- Include your city and state so that people who call you will both: a) have a clue as to what time zone you are in and b) recognize it when they see it on their phone bill.

We reserve the right to edit all Opponents Wanted ads to our standards of taste.

Networks

The Sierra Network from Sierra On-Line brings people together "just for the fun of it." For a flat fee of $11.95 per month with unlimited usage, players gather to meet and play (or watch others play and "just kibitz" during) real-time games of cribbage, hearts, chess, checkers, backgammon and bridge. Using an interface anyone could learn with *no* instruction whatsoever and featuring the quality gamers have come to expect from Sierra, this network is worth exploring. **This just added:** multi-player, on-line ***Red Baron*** and ***Paint Ball*** (additional fee required for these games). For more information, call (800) SIERRA-1.

Attention Canadians! The **SUZY** information system has added a comprehensive play-by-mail section to their network. With Craig Russell in charge of this new section, players can play PBM games, download special software to facilitate PBM play and exchange information with other PBM gamers. For further information, contact Saraka Chobot (VP of Marketing) at W-(604) 439-1311.

Join the **Summit Games Network**, the first network to feature "multi-tasking." This unique element allows a member to perform *four* functions at once *plus* upload and download files simultaneously through a menu-driven interface. This is an entire network dedicated to *games only*! Role-playing, adventure and wargames for commercial, shareware and public-domain releases are featured. Direct games support from such companies as TSR, Inc., Origin and Lucasfilm Games. For more information, call W-(800) 955-9957 or M-(915) 672-2810 (7, even, 1 stop bit). IBM or compatibles only (with a Hayes-compatible modem).

CompuServe is the first international information system to offer three unique services specifically for modem gamers:

Modem Games Forum (sm): Discussing any and all aspects of games that support modem play, the Forum features an electronic bulletin board for message correspondence, data libraries for file exchange, and conference rooms for real- time interactive discussions. Type: GO MODEMGAMES.

Challenge Board (sm): A directory of modem game players, participants profile themselves so other gamers can search for them as opponents for most commercial, public domain, and shareware games that support the play-by-modem feature. Type: GO CHALLENGE.

***MTM Lobby* (sm)** features On-line Playing: This new service allows players to connect their modem-capable games to opponents directly through the CompuServe network. Thus, players can connect to international opponents for no more than the price of a standard domestic long-distance phone call. Also, both players can maintain anonymity since neither party needs to give out his phone number to connect, and each has the opportunity to choose from hundreds of potential opponents. Type: GO MTMLOBBY.

If you are not currently a CompuServe subscriber, you can join by calling (800) 848-8199 and mentioning that you are interested in Modem Gaming.

Announcing: a new tournament! CompuServe is hosting a *Computer Wargaming World* and **Microprose** sponsored tournament of ***Global Conquest***. It will be open to all who have joined the CompuServe Modem Games Forum and will be held around the beginning of June 1992. Interested players should post Sara Howard (CIS address: 76702,543) in the Modem Games Forum, Section 6 ("Strategy/Conquest") for more information. Prizes were still to be determined at press time.

Bulletin Board Systems

The magnificent *Castle of Tyme* welcomes all fantasy adventure gamers to call (206) 277-5489 in Bellevue, WA to experience an exciting arcade/adventure BBS. Buy equipment from user-owned shops, duke it out in a bar-room brawl, fight random battles along the roads or die fleeing! Spells and statistics are recorded automatically on-line. Join up with companions to form stronger parties and advance in levels (in spite of it all...). —Eric Newman

Thunderbolt! BBS in Chicago, IL now offers on-line entertainment with ***Poker***, ***Blackjack***, ***Bingo***, ***Galactic Empire***, ***Zorgon***, ***Quest for Magic***, ***The Arena*** and ***Flash Games*** ("The Next Generation" of on-line gaming). Play RPGs with on-line multi-sided dice! Eric Spanitz, SYSOP. Modem settings 8-N-1, 300/1200/2400. Phone (312) 248-4822.

The Realm of Chaos BBS seeks contestants for ***F-29 Retaliator***. Files, Messages bases and on-line games available. Currently running Telegard 2.7 365 days a year. Located in the heart of Chicago, IL and operating two nodes: (312) 271-2558 and (312) 225-4703.

Opponents wanted for *XSHIP*, a space conquest strategy game. The game is played via BBS with two to ten players per game. Game turns update as fast as the players take their turns. For more information, call the **Battlefield BBS** in North Babylon, NY at (516) 669-0522 300/1200/2400 8-N-1.

Call the **Missile Silo BBS**. Contestants wanted for ***Command HQ***, ***F-29 Retaliator*** and many others. Tournaments to be held soon. Files, message base and (soon to come) on-line games. Running on Telegard 2.5 7 days a week, 24 hours a day. Located in Skokie, IL outside of Chicago. Call (708) 581-1735. Mention this ad in *CGW* for no-hassle access validation.

Harpoon *Users Unite!* The ***Harpoon*** Users' Group (HUG) invites you to join the ranks of its members. HUG publishes the quarterly newsletter C³I, which features articles on design tips, game strategy and tactics, weapons platform information, ***Harpoon*** product development and much more. HUG also operates the ***Harpoon* Scenario Warehouse BBS** wherein members have access to hundreds of user-created ***Harpoon*** scenarios. Our BBS can be reached at (718) 746-7466. Information on joining HUG is available on the BBS or by sending a stamped, self-addressed envelope to our new address at: HUG, P.O. Box 5138, Bryan, TX 77805-5138.

Wargamers Addicted to Strategic Play ("WASP") invites you to call the **Wizard's Tower BBS**, home of the Modem Warriors. Tournaments and opponents for ***Command HQ***, ***Modem Wars***, ***688 Attack Sub***, ***Knights of the Sky*** and more. Find an opponent at (901) 757-2711 (2400,8,N,1), which is the Memphis, TN area. Mention this ad in *CGW* and get access to the WASP message base!

The Imperium BBS is looking for modem gamers like you! Tournaments are run for ***Knights of the Sky***, ***Command HQ***, ***The Perfect General*** and ***Global Conquest*** (just to name a few!). We have on-line games, message bases and 3 gigs of files, too. Call one of our three nodes in Middleton, NJ at either: 1200/2400 (908) 706-0342; 9600 v.32 (908) 706-0305; HST Dual Standard 38.4 (908) 706-0321.

Individuals by Area Code

Seeking opponents for ***The Perfect General*** or ***Flight Sim***. Call Peter Clift in Bellevue, WA at H-(206) 562-0697.

Modem opponents sought for ***Command HQ***. Interested in any and all challengers. Call Joe Bolnick in Los Angeles, CA at H-(213) 933-5035 or W-(310) 277-2514.

Their Finest Hour pilots are needed to join others in the Washington, DC area. Contact Charlie K. at 14706 Willoughby Road, Upper Marlboro, MD 20772 or call H-(301) 627-3741. No modem.

Modem opponents wanted for *Falcon 3.0* and *688 Attack Sub*. Please call Howard in Dearborn, MI [48126] at H-(313) 584-6272 or W-(313) 547-1331 xt-472, or leave e-mail on GEnie at: H.KLANN1. I'm waiting to hear from you!

Indianapolis, IN area gamers sought for modem play. Currently involved in ***Knights of the Sky***, ***The Perfect General***, ***Command HQ*** and others. Call H-(317) 786-0977 and ask for John Busche or leave a message.

Modem opponents sought in the Indianapolis, IN area. I am interested in ***Command HQ***, ***The Perfect General*** or any similar type of game. Call John at H-(317) 786-1718 or W-(317) 265-4934.

Will play ***Command HQ***, ***Red Baron*** or ***688 Attack Sub*** via modem or face-to-face. I also play board games. See you on the battlefield. Contact Ken Guest at 10023 Southridge Drive, Oklahoma City, OK 73159 or call H-(405) 692-2846.

Modem opponents wanted for flight sims or any stimulating game. I am a computer sim buff and would like to meet other who enjoy computer sims. Locals (San Jose, CA) are preferred. Call Tim at H-(408) 395-0963.

Seeking a play-by-mail opponent for ***Second Front***, Amiga version. Call Jeff in Louisville, KY at H-(502) 499-7358.

Seeking to trade custom-built C-64 or Amiga scenarios for ***Warship***, ***Overrun***, ***Typhoon of Steel***, ***Battles of Napoleon***, ***Action Stations!*** and ***Harpoon***. Call Ted in Salem, OR at H-(503) 364-9101.

Local opponents wanted in the Providence, RI area for ***Knights of the Sky*** modem play. I can be reached on GEnie [D.BARIL1], CompuServe [73527,3240] and on the Eagle's Nest BBS (401) 732-5292, or call Dave Baril at W-(508) 559-1000 xt-3725 between 8:00am and 4:30pm Eastern Time.

Modem and face-to-face opponents wanted for ***Empire***, ***The Perfect General***, ***Populous***, ***Powermonger***, etc. Call Gord in Kitchener, Ontario, Canada at H-(519) 896-0306.

Veteran modem warrior seeks opponents for the following: ***Global Conquest***, ***Command HQ***, ***The Perfect General*** and ***Modem Wars***. I am available most nights after 9pm Eastern Time at H-(718) 465-3282. I can also be reached on CompuServe [70172,1425].

Worthy opponents wanted for ***The Perfect General***, ***Command HQ***, ***Knights of the Sky***, etc. If you live in the New York, NY area, call Peter at H-(718) 837-1302.

Opponents wanted for ***Command HQ***. Call Shannon Hill in Lubbock, TX at H-(806) 792-6064.

Looking for ***Command HQ*** and ***Global Conquest*** players across the U.S. I have a data service which lets me call 43 major cities. Call me anytime and we'll see if you're in one of them! Ask for David Wolverton of Richmond, VA at H-(804) 379-5545.

Their Finest Hour pilots are asked to share their mission experiences with Charlie K. in Washington D.C. area at 14706 Willoughby Road, Upper Marlboro, MD 20772; or call H-(301) 627-3741. No modem.

Modem opponents wanted for ***NFL Pro League Football*** and ***Falcon 3.0***. Call Randy Quintana in Denver, CO at H-(303) 973-2925.

Local opponents wanted for ***The Perfect General***. Please call Patrick in Syracuse area of NY at H-(315) 682-5816.

Modem opponents wanted for ***The Perfect General***, ***Command HQ***, ***Falcon 3.0***, ***Modem Wars*** and other games. Please contact Jim Garrett in San Diego, CA at H-(619) 587-0648.

Flight simulation combat opponents wanted. I have most of the currently available simulators. If I don't have the one you want to play, *I'll get it!*. I am an avid flight simulator buff and would like to meet other with a like interest. Call W.C. "Boa" Hudson in Orange, CA at H-(714) 744-5040. Please leave a message if I'm not there.

Opponents wanted for ***Falcon 3.0*** and ***The Perfect General***. I'm available on CompuServe [70324,3627] or America On-line [NovaDB]. Call Dean in Laurel, MD at H-(301) 317-9293 or in Alexandria, VA at W-(703) 739-8855.

Looking for opponents to modem with in the Houston, TX area. Will play ***The Perfect General***, ***Armor Alley***, ***Falcon 3.0*** and others. Ask for Alan at H-(713) 772-9519 or W-(713) 451-9600.

Pro League Football opponents wanted. Call Gene in Queens, NY at H-(718) 723-0018. Also interested in ***Falcon 3.0***. Leave a message for a quick reply. See you on the turf!

I would like to find other to trade ***Battles of Napoleon*** scenario editor creations for the C-64. Also ***Rules of Engagement***, ***Legionnaire Interceptor*** and ***Breach 2*** for the Amiga. Am seeking fellow gamers who enjoy *creating* as much as they do playing! Please, contact Andy Anderson at 198 W. Piller Precise, Longview, TX 75605; or call H-(903) 663-2120. **CGW**

Vive *L'Empereur*

Strategy and Tactics from Napoleon's Viewpoint

as "channeled" by Michael Peck

"Tactics ... may be learned in treatises, but the science of strategy is only to be acquired by experience, and by studying the campaigns of all the great captains."

Those who wish to learn the secrets of we, Napoleon Bonaparte, should first study those principles of war which once made all Europe tremble at our feet. To illustrate our maxims, we will use **Koei**'s *L'Empereur*, that device conceived by 20th Century strategists to study our conquests. We will focus on the opening stages of our victorious 1803-4 campaign in Germany, just after the French people made us First Consul.

War clouds were gathering that spring, as the English gold of Perfidious Albion stirred the reactionary regimes against us. Denmark, Prussia, Russia and England had already declared war; Austria, Turkey, Spain and Holland were wavering in their neutrality.

"When you are occupying a position which the enemy threatens to surround, collect all your force immediately, and menace him with an offensive movement."

Rather than wait for our enemies to attack from every direction and gnaw at France's vitals like a horde of ants, we resolved to strike first. Because in *L'Empereur*, as in our campaigns, the Allied coalitions are slow, uncoordinated and unaggressive, they can be defeated in detail by concentrating your full army on one enemy at a time. Seek the enemy's main army and crush it in open battle; all his cities will then fall like ripe fruit.

When planning a campaign, choose those cities which will put you closer to your objectives. We began our 1803 campaign by attacking the Prussians at Frankfurt, since possession of the city would give us a gateway to Berlin and Scandinavia. Before our plans could proceed, however, we first had to put France on a war footing, and repair the neglect of Barras and his bumbling Directory. During the Economic Interphase,





we allocated three-quarters of the ready funds to war expenditures, to pay for new artillery pieces. This should be done every turn, because there are never enough guns.

"When you have resolved to fight, collect your whole force. Dispense with nothing. A single battalion sometimes decides the day."

Next, we united our armies, because the greatest folly in war is to divide your forces. But in *L'Empereur*, the computer generals always divide their armies into groups of three or four corps, which can be destroyed piecemeal. Alas, when we became First Consul, we found the armies of France similarly divided. Therefore, we removed all the artillery battalions and infantry reserves in the cities surrounding Paris, and sent them to the Grande Armee forming in the capitol. Although this left the coastal cities and the French Navy vulnerable to British or Spanish landings, it is better to lose a city to one opponent, while annihilating a second opponent's army. Ideally, a commander should attack with about 10 corps, of which at least four should be artillery and one cavalry.

This also illustrates the value of strategic movement during the Economic Interphase, which is the only time that leaderless troops can be moved. Use it to concentrate your armies at key points, because a small garrison is the same as leaving no garrison at all.

Finally, a wise commander collects all possible information before embarking upon a campaign. Since the Economic Interphase is the only time when enemy cities can be examined for free, be sure to spy on all the surrounding territories.

As expected, reconnaissance revealed the Prussians had three corps defending Frankfurt. Such a small number of corps makes it difficult for the defender to maneuver, because victory rests upon control of the town hexes. Therefore, the defender must sit in towns while the attacker can concentrate his forces and attack them piecemeal.

"Give them a whiff of grapeshot."

As the Russians say, "Artillery is the God of War." When setting up on the battlefield, guns should be placed in front, so they can move into firing position more quickly. Remember that artillery moves slower than infantry and cavalry. This was amply demonstrated at the Battle of Frankfurt, where the thick woods limited the guns to moving one hex per turn. The battle also demonstrated the importance of finding the high ground, because the absence of hills around Frankfurt meant the guns had no easy line of fire.

The keys to using artillery are position and patience. Line up your batteries, on hills if possible, and bombard a single enemy unit until it is bled white and demoralized. Once demoralized, enemy formations are easily finished off by infantry assault or cavalry charge. Remember, you have 30 days to win the battle, ample time for massed artillery to break enemy morale and attrit his numbers.

Counterbattery fire is the artillery's first task, because enemy cannon can wreak terrible damage upon large attacking formations. During a bombardment, don't put friendly troops adjacent to enemy units; errant cannon shots are both common and devastating. Once your troops have engaged the enemy, cease bombardment, unless the artillery can be positioned point-blank.

"Of all the obstacles to the march of an army, the most difficult to overcome is the desert; mountains come next, and large rivers occupy the third place."

To reach the city of Frankfurt, we had to cross a large river spanned by only one bridge. A river crossing is a hazardous enterprise because it channels the attacker over a few bridges which the defender can destroy (sometimes while the attackers are standing on it). The best strategy is to bombard the defenders until they are demoralized, while the infantry build additional bridges.

Such were our tactics at Frankfurt, where we positioned four batteries on the river bank facing the western bridge to the city, and commenced a fierce cannonade on the Prussian batteries guarding the crossing. The Prussian guns inflicted some losses on our valiant gunners, but weight of numbers told. Once the Prussian guns were silenced, we then concentrated fire upon the infantry protecting the bridge. While the bombardment proceeded, our infantry endeavored to build additional bridges. In *L'Empereur*, however, building bridges is difficult along wooded banks, and the construction attempts continually failed.



Still, timing is everything in war and a great commander will snatch those fleeting opportunities offered by the Gods of War. When the hail of shot disrupted the defenders, we sent Marshal Davout's corp charging across the bridge. He decimated the enemy, and on the next turn, Marshal Massena's corps crossed and joined the attack.

"Charges of cavalry are equally useful at the beginning, the middle and the end of a battle. They should be made always, if possible, on the flanks of the infantry, especially when the last is engaged in front."

Cavalry is the most deadly and the most fragile of the combat arms. Against small enemy units, or especially against demoralized troops, a charge can be devastating. First, disrupt the enemy lines with cannon fire or infantry attack and then, order the charge. At Frankfurt, once each Prussian corps was demoralized, we committed Murat's cavalry, which swept the enemy off the field in a series of charges. Remember, though, that cavalry is both fragile and expensive. It should not be used for normal attacks, but saved only for the climactic charge against a wavering opponent. Attacks against large, fresh enemy corps should be avoided, because cavalry demoralizes too easily.

"All wars should be governed by certain principles, for every war should have a definite object, and be conducted according to the rules of art."

There are many other principles of war that a great commander must remember. For example, in between battles, use every opportunity to train your troops. Training is more important than raising morale, because troops can always be encouraged during a battle. Similarly, be careful of heavily reinforcing a corps in the midst of a battle, because the raw conscripts will dilute a unit's training and morale.

The morale of his troops must be the commander's first concern. In the heat of battle, units will become demoralized, and the commander must be free to rally them. Therefore, he should not become embroiled in the fighting. His personal troops should be *infantry*, not artillery, or else he will have the choice of firing cannon or rallying his men.

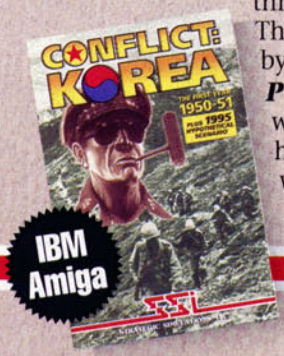
A great commander will also judge his marshals wisely, since fortune has endowed them with different abilities. Marshal Murat, for example, is an excellent commander of horse but a poor infantry tactician. In particular, artillery should only be given to competent commanders like Marmont, or else cannon shots will scatter.

A commander must also judge his opponents well. For example, the English will normally confine themselves to small amphibious assaults, while the Turks are very sensitive to Balkan conquests. Learn from these principles, and use them to enhance your own skills. Remember that all glory comes to those who dare. *Vive L'Empereur!* **cgw**



CONFLICT: KOREA™

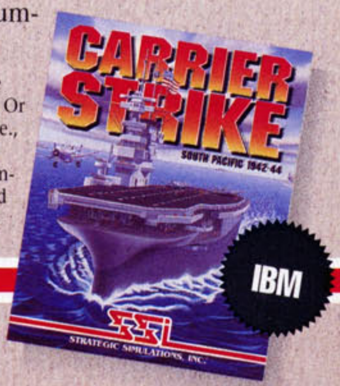
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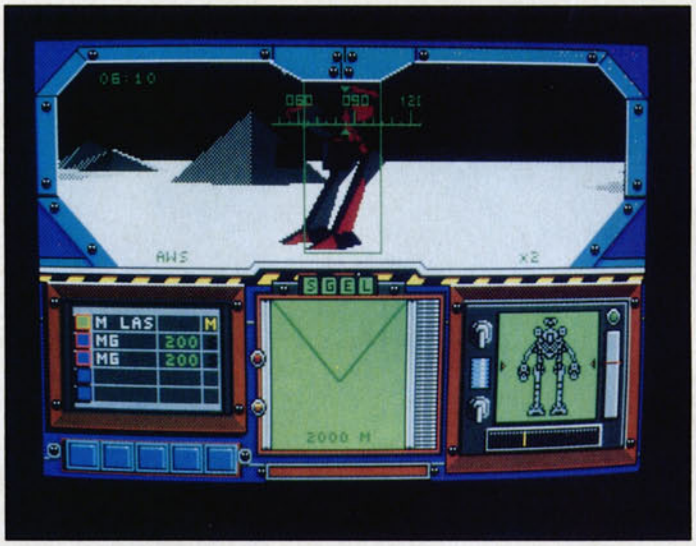
A Sneak Preview of GEnie's Multi-Player BattleTech

by Syngvar Dalch

The depleted-uranium slugs zipped up the back of the *Blackjack*'s left leg. Its armor peeled off and fell away as if it were diaphanous silk instead of tons of ceramic armor. A silver spray of ions shot out at the back of the *Blackjack*'s thigh, starting the 'Mech into a slow spin.

— Michael A. Stackpole, *Lethal Heritage*, published by FASA Corporation, used with permission

Although the quotation from the novel is anachronistic in terms of the *BattleTech* universe (Stackpole's *Blood of Kerensky* series takes place after the wars that are re-enacted in **Activision**'s *MechWarrior* game, most of the battles that take place in the *BattleTech* Center in Chicago and the missions assigned to players in **GEnie**'s new *Multi-Player BattleTech*), it is very useful for describing the thrill to be discovered in **Kesmai's** new *Multi-Player BattleTech* (now undergoing beta test on **GEnie**).

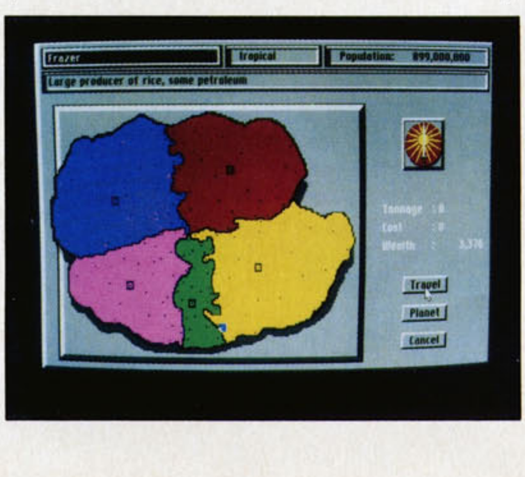


Like *MechWarrior* before it, *Multi-Player BattleTech* allows the player to participate in a *BattleTech* battle from a first-person perspective. It puts the player in the cockpit of one of the giant ferro-titanium robots (right out of *Japanime* such as *Robot Carnival*) and lets him/her (female mechwarriors are welcome in this dark future's version of armored combat) win or lose in a real-time battle. The controls are still the same as in the earlier game. One still punches the **Tab** key in order to fire rapidly and sequentially all the weapons at one's disposal. One still places the crosshairs on one's enemy and presses the **Enter** key to target the weapons and the **Space Bar** to fire all of them. One still presses the **E** key in order to get a damage report on the enemy and **D** to update one's own damage evaluation.

The difference is that *MechWarrior* only allowed players to recruit computer-controlled pilots to handle the other 'mechs in their units. In *Multi-Player BattleTech*, however, players recruit other human pilots to undertake the missions for which they contract. How refreshing it is to command human mechwarriors as opposed to counting on the computer's artificial stupidity to cover one's flank!

Where *MechWarrior* forced the gamer into the role of mercenary in order to explore the universe of the Successor States, *Multi-Player BattleTech* allows players to enlist in the services of any of the major Houses (Davion, Steiner, Liao, Kurita or Marik) *or* become a freebooting mercenary, serving the highest bidder. When players begin the game, they choose their origin and loyalty. Then they are invited to attend the "academy." At the academy, they will train in one of three types of 'mechs (light, medium or heavy), depending on the House to which they owe allegiance.

Once seven successful missions have been completed at the "academy," the gamer will have the opportunity to enlist in an appropriate military unit. These units are often as active as the other human mechwarriors may be, so one can terminate an enlistment and join another group at any time. This writer initially enlisted in the 3rd Crucis Lancers, but failed to find much action whenever he was on line. So he used the "data bank" in his unit's headquarters to find out who was currently on line and *finding* action. Then he sent a ComStar message to the players and asked if he could join them. They said, "Of course!" He said, "All right!" Changing his enlistment to the 1st Crucis Lancers, he rendezvoused with the unit, under then Leftenant WilStarr's command, and proceeded to roast some dragon (for the uninitiated, House Kurita is known as the Draconis Combine).



As players succeed in multi-player missions, as well as single-player missions, the program updates their resumes, posts their relative position on the promotion list and keeps track of the attitude toward the player's character held by the leaders of the house for whom the character is currently serving. Working one's way up the promotion list is even more satisfying in a multi-player environment than it is in a campaign game for a single-player simulation. It becomes extremely exciting to pass one's ally by on the promotion list and almost equally exciting to see one's comrades-in-arms being promoted.

First and foremost, the most enjoyable aspect of multi-player on-line games is the camaraderie formed between players. **GEnie** even has special bulletin boards reserved for the major houses from the *BattleTech* universe in order to facilitate E-mail friendships and alliances (as well as role-playing) between the players.

It's a special option used on Solaris so the bookies can monitor a 'Mech's performance during a fight. It lets them lay off bets when a 'Mech takes internal damage that isn't clearly visible to the spectators.

— Michael A. Stackpole, *Lethal Heritage*, used with permission

Speaking of on-line interaction, the screenshots used for this article have a fascinating history that underscores this aspect of the game. During a lull in the action, the writer received a ComStar message from Thanos to meet him in the arena on Solaris, the gaming world. Foolishly, the inexperienced Locust pilot winged off to Solaris and met the code-named "god of the dead" in a one-on-one duel. "Nice Locust," smirked Thanos by typing the line (as in any network's "Chat Mode"), as Dalch tried to locate his foe. "Like my Marauder?"

The mismatch was obvious, but Dalch tried to use the mountainous terrain of the Kobe Sector arena in order to get in close, under the long-range firepower of the Marauder. Thanos was patient and waited

until the light 'Mech broke cover, wasting the Locust with one wave of long-range laser beams. Of course, the action had been too fast and furious to get decent pictures, so the *CGW* staff came up with an idea. They typed a suggestion that the two 'Mechs meet in the center of the arena, hold their fire and stop moving in order to get the shots. Then, they would back off and the heavy 'Mech could win the match. "But, wait," thought the evil editors, "maybe we can talk him into throwing the match."

CGW explained what they were doing and Tom Waddell, a high school student from Van, Texas (*aka* Thanos), proved to be a good enough sport to allow himself to be victimized by this dastardly deed. He posed with his 'Mech as though it were a modelling job. "Is this my best side?" he queried. Then, remembering the lengths some gamers will go to win a battle, he belatedly asked, "Are you sure this isn't a trick?" Assured the pictures would be in the magazine, he insisted on "Firing for effect" off into the horizon. Thanos had not lost a battle for a long time and was "rewarded" with a news flash scrolling across the screen and telling all on-line warriors that he had lost.

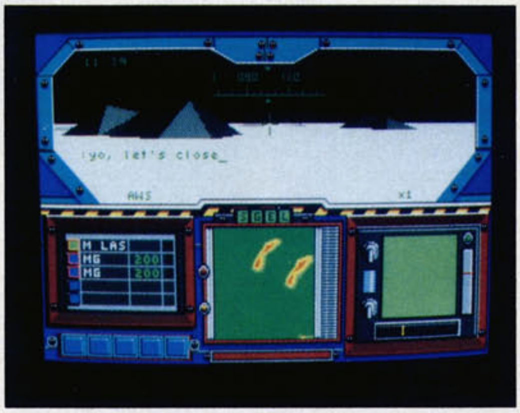
In the future, **Kesmai** plans to allow betting on the Solaris matches (just like in the books), but they hope to keep unscrupulous journalists from getting matches thrown in their favor by allowing bettors to "watch" the matches live. Meanwhile, Solaris is available to all on-line mechwarriors in order to provide an opportunity for one-on-one dueling and the potential for settling grudge matches with a rival player.

Justin's *Valkyrie* cut to the right as the heavy laser on the *Rifleman*'s left arm torched a black furrow through the meadow off to Justin's left. "It can't continue to turn!" he thought. "The torso locks up after about forty degrees. If I can get into its rear arc, it can't continue to track me."

— Michael Stackpole, *Warrior: En Garde*, published by FASA, used with permission

The only major frustration for *Multi-Player BattleTech* players is likely to be what **Kesmai** calls the "artificial stupidity." As in the original *MechWarrior*, the player can easily get behind the computer-controlled opponents and blast away at his/her heart's content. In order to provide constant action, there are always missions on line in which human players face artificial opponents and, at press time, **Kesmai** was trying to bring more play balance into the computer opponent's strategy. Solaris is always a consolation for those who get tired of "outthinking" the AI.

The truth is that *Multi-Player BattleTech* helps players suspend their disbelief enough to enter the realm of conflict and intrigue surrounding the *BattleTech* universe. From its inception as a people and paper/miniatures game to its current incarnation as a fascinating simulation, *BattleTech* has allowed gamers to escape into a dark future where anthropomorphic machines expand one's power and the one-on-one duel regains its chivalric ideal. We think it is escapist fare that builds worlds. **cgw**



The Modern Games: 1950 - 2000

by M. Evan Brooks

This article is part of an on-going series that will cover all wargames released for the computer market. It consists of pre-20th century (*CGW* #75), 1900-1950 (*CGW* #88-89), Modern (1950-2000) and Future (2000-). The state of the art in computer wargames has changed dramatically over the last decade. The Hall of Fame illustrates games that were breakthroughs and commercial successes in their day. Yet, many of them do not "age" well and it is doubtful if the computer world will ever develop its classics, like *Monopoly* of the boardgame genre. Thus, these paiktographies will be updated and revised on a regular basis, so that the user may have some indication of what is/was available. It should be noted that the ratings are an individual preference, and do not necessarily reflect the opinions of the publisher or editor of this magazine. Also, please note the platform availability: a five-star game on an Atari 800 that is several years old is not of the same sophistication as a new product designed for a PC 486-33. However, it has been given its rating for what it did, to a lesser extent, what it still does and perhaps for the place it holds in this reviewer's heart and memory. Of course, the designers look askance at these ratings, and often deluge the magazine with voluminous complaints. Still, these are intrinsically subjective, and a discriminating reader should be able to temper the ratings with this writer's normal reviews in order to ascertain the inherent biases. What is also noteworthy is that few computer games have a shelf life longer than three years, yet boardgames remain classics ten years or more after their release (e.g. *Napoleon's Last Battles*, *A House Divided*, *Up Front*).

In a ten-year span (1981-1991), the gaming market has gone from a 16K 8-bit computer to a 1-2 MB 16/32-bit computer with clock speeds now in excess of 20 MHz. The 8-bit market is moribund (if not outright deceased), and the MS-DOS clones hold a commanding lead in forthcoming titles. The ST has been virtually abandoned in the United States, and while the Amiga's superior game and graphics capabilities still hold a loyal following, the MS-DOS machines are "where the action is."

Prices are difficult to determine for older games, since they are so heavily discounted, assuming they can be found at all. Thus, be aware that the prices are only a rough guideline. Also, since this guide is for reference, one should be aware that prices shift downwards rapidly.

If any readers have additions/corrections/modifications, please send them to me in care of this magazine or via modem on GEnie (address: M.E. Brooks).

Legend

xxx = Data not available.
Line 1: Title

Line 2: Machine Format ([A]tari/[C]ommodore/[Ap]ple II/[T]RS-80/II[GS]/[Am]iga/[ST]/[M]acintosh/[I]BM]; Issue of *CGW* in which that game was mentioned (bold print refers to major article); Company; Designer; Date of Publication; Price (O/P: Out of Print); Rating



Chuck Yeager's Air Combat

0	Good use as a magnet holder
*	Avoid
**	Marginal
***	Average to Good
****	Very Good
*****	Highly Recommended
N-R	Not Rated

Line 3: Difficulty ([Beg]inner, [Int]ermediate, [Adv]anced)/ Environment ([Land], [Nav]al, [Air], [Dip]lomatic, [Econ]omic)/ Level ([Tac]tical, [Op]erational, [Str]ategic)*/ # of Players (M: modem option)

Tactical:	man-to-man up to company level (turns represent seconds to hours)
Operational:	battalion-level to division-level (turns represent hours to weeks)
Strategic:	corps-level or higher (turns represent weeks to years)

Military Organization

Unit Size	Minimum	Maximum
Fire Team	2	3
Squad	9	12
Platoon	40	50
Company	120	150
Battalion	500	1,000
Brigade	3,000	5,000
Division	10,000	15,000
Corps	20,000	80,000
Army	100,000	up

Game Listings

Abrams Battle Tank
I; #**60**; **Electronic Arts**; Damon Slye; 1989; $49.95; **+
Int/Land/Tactical/1

The first serious contemporary tank simulation for the faster 16-bit machines, this product has been superseded by later releases (cf. *M-1 Tank Platoon*, *Tank*). Graphics were adequate, but terrain elevation left something to be desired, and the main deficiency was that the program only portrayed a single tank while modern doctrine emphasizes larger element (company/squadron) employment.

ACE: Air Combat Emulator
C; #35,88; **Spinnaker**; Ian Martin; 1987; O/P; N-R
Beg/Air/Tac/1

A British import arcade game.

A-10 Tank Killer
I; #62,65,**66**,68,87; **Dynamix**; Damon Slye; 1989; $59.95; ****
Int/Air/Tac/1

A simulation of the "Warthog," the best CAS (close air support) aircraft ever forced on the Air Force. Version 1.5 has Desert Storm scenarios, and the graphics are well done. Missions are varied, but joystick control is very sensitive and maintaining level flight may prove difficult, especially when using the chain gun.

After Burner
Am/I; #65,66; **Sega**; Sega Enterprises; 1989; ?; *
Beg/Air/Tac/1

An arcade game that is far superior in the coin-op cockpit than it is on the personal computer.

Airborne Ranger
C/Ap/Am/I; 41,**43**; **MicroProse**; Lawrence Schick; 1987; $29.95; ****+
Int/Land/Tac/1

Contemporary Ranger operations in a semi-arcade mode. Yet it is fun and it works. Challenging to both adults and children; recommended for a diversion from the more serious simulations. It remains on the author's hard drive.

Air Duel
Am/I; #85; **MicroProse UK**; Glynn Williams; 1992; ?; N-R
Int/Air/Tac/1

Forthcoming design from MicroProse's British subsidiary, ostensibly covering muli-period air combat a la *Chuck Yeager's Air Combat* (cf. infra).

Air Strike USA
Am/I; #82; **Cinemaware/Spotlight**; Rod Swift; 1990; $39.95; **
Beg/Air/Tac-Op/1

An arcade game semi-disguised as a flight simulator, *Air Strike* portrays an ATF II (ultra-modern attack fighter) in a multitude of missions world-wide. Documentation is somewhat spartan and the world views and flight mechanics are similar to the documentation.

Air Warrior
#63;**67**,88; **GEnie**; Kesmai; 1988; $6.00/hour; ***+
Int/Air/Tac/1-multi; M

An on-line simulation of tactical air combat from World War I onward. Continually being revised and updated, it is interesting, although it can become an expensive way of life. The learning curve is lengthy, but often veteran pilots are available on-line who are willing to give assistance and tutorials. Korean War vintage aircraft are now available.

Apache Strike
M; #48; **Electronic Arts/Silicon Beach**; James W. Long and Tom Zerucha; 1988; ?; N-R
Beg/Air/Tac/1

An arcade version of an AH-64 helicopter simulation; all action occurs in an urban environment a la *Air Wolf*.

Arctic Fox
Am/I; #28; **Electronic Arts**; Kevin Ryan, Jeff Tunnell, Damon Slye and Richard Hicks; 1986; O/P; N-R
Beg/Land/Tac/1

A futuristic tank arcade game resembling the early arcade *Battlezone*, but with more options.

Armor Alley
M/I; #87; **Three-Sixty Pacific**; Arthur Britto II; 1990; $39.95; *+
Bas/Land-Air/Tac/1-4; M

A recent arcade tank/air support game, this involves eight scenarios of increasing difficulty. Graphics and gameplay can offer a short entertaining diversion, but little of serious import. An updated version of an early Apple 8-bit game.

Armor Assault
A; #**3.1**,37; **Epyx**; John Weber; 1983; O/P; *+
Beg/Land/Tac/1-2

A tactical meeting engagement between US and Soviet forces. This game was one of the first to offer a "design-your-own-scenario" option. Units are limited to six vehicles each (no other air or ground support); hence its realism is very low. Given the contemporary market, this game is visibly obsolescent.

ATAC
Am/I; **MicroPlay**; MicroProse UK; 1992; $49.95; N-R
Int/Air/Tac/1

Initially entitled *White Shadow* (until many people confused it with an old television show about a white basketball coach in an inner city school), this simulation (*Advanced Tactical Air Command*) portrays the drug wars between the US and the Medallin cartel a la *Clear and Present Danger.*

Avenger A-10
I; **Spectrum Holobyte**; Scott Bayless; 1992; $69.95; N-R
Adv/Air/Tac/1-Multi; M

Part of Spectrum HoloByte's "Electronic Battlefield," this simulation will be a detailed portrayal of the "Warthog" in various theaters (cf. *A-10 Tank Killer* for similar treatment).

B-1 Nuclear Bomber
Ap; #**1.1**; **Avalon Hill**; ?; 1983; O/P; 0
Beg/Air/Tac/1

An early game from Avalon Hill, its play mechanics are embarrassing in the contemporary market; in fact, its play mechanics were embarrassing when it was initially released.

Balance of Power
M/I; #29,34,40,57,64; **Mindscape**; Chris Crawford; 1985; $49.95; ****
Adv/Dip/Str/1-2

With numerous revisions having already appeared, this simulation of modern power politics graduated from a bi-polar world (US/Soviet) in its initial release to a multi-polar world (US/Soviet/Chinese/Third World) in its later edition. A newer edition will probably simulate the newest version of *Realpolitik*, with the collapse of the Soviet Empire and the restoration of the instabilities inherent in Eastern Europe.

Baltic 1985
Ap; **Strategic Simulations Inc.**; Roger Keating; 1984; O/P; N-R
Int/Nav-Air/Op/1-2

Part of SSI's "Rapid Fire" series, this simulation covers World War III in the Baltic.



Command HQ

Battalion Commander
A/Ap; #37; **Strategic Simulations Inc.**; David Hille; 1983; O/P; **+
Int/Land/Tac/1

A modern simulation of company/battalion level operations, this was an improvement on *Combat Leader*, but its age still shows.

Battle Command
C; #40,74,88; **Applied Computer Consultants**; ?; 1986; O/P; N-R
Beg/Land/Op/2; M

More of an abstract battle chess than a modern simulation.

Battle Front
C/Ap; #**32**,37,88; **SSG**; Roger Keating and Ian Trout; 1987; $39.95; ***
Int/Land/Op/0-2

A very flexible game covering corps-level combat and proper use of the chain of command during World War II. Design-your-own scenarios open the bulk of the 20th century to gaming; however, the artificial intelligence of subordinate commanders is notoriously weak. The game system will either attract or repel the player — there is no middle ground.

Birds of Prey
Am/I; #85; **Electronic Arts**; ?; 1992; $49.95; N-R
Int/Air/Tac/1

Modern aerial warfare.

Blue Angels
I; #63,65,67,**70**; **Accolade**; Rick Banks and Paul Butler; 1990; $49.95; **
Int/Air/Tac/1

What if they didn't give a war but people still came? This product simulates formation flying, and does it rather well. On the other hand, flying a hot interceptor without a viable enemy leads to a certain lassitude.

Bomber
C/Am/ST/I; #66; **Activision**; Vektor Grafix; N-A; N-A; N-A
Int/Air/Tac/1

Released in the United States as *Strike Aces*, cf. infra.

Brigade Commander
Am; #85,**86**; **TTR**; Argonaut Software; 1991; $44.95; N-R
Adv/Land/Tac/1

Carrier Command
M/I; #**52**,63,69; **MicroPlay**; Realtime Games; 1989; $39.95; **+
Int/Nav-Air/Tac/1

Futuristic arcade game of carrier-air operations.

Chuck Yeager's Air Combat
I; #**85**,**86**,88; **Electronic Arts**; Brent Iverson; 1991; $59.95; ****
Int/Air/Tac/1

A flight simulator offering the ability to fly scenarios in World War II, Korea or Vietnam, or mix-and-match them. Adequate graphics (although this reviewer is not overly fond of polygon-emphasized graphics), good game play and an excellent post-mission analysis yield a high recommendation.

Civilization
I; #92, **93**; **Microprose**; Sid Meier; 1991; $69.95; *****
Int/Air-Land-Sea/Tac-Str/1

A "Sid Meier classic;" civilization from 4000 BC to AD 2100. More addictive than crack, it should come with its own warning label. The only deficiency is that it is so rich and textured that the documentation is incomplete, thereby almost necessitating the purchase of the "Help Book" (authored by **CGW**'s own Johnny Wilson and Alan Emrich).

Combat Leader
A/C/Ap; #**3.5**,37,88; **Strategic Simulations Inc.**; David Hille; 1983; O/P; **
Int/Land/Tac-Op/1

A simulation of armored tactical operations over a forty-year period. Flexible, albeit with primitive graphics.

Command HQ
I/M; #74,76,**77**,**79**,**80**,**81**,88; **MicroProse**; Dan Bunten; 1990; $59.95; ****+
Int/Land-Nav-Air/Op-Str/1-2; M

A product capable of recreating World Wars I-IV(?), this is a modified "beer and pretzels" game. Highly recommended for entertainment, although not as a historical learning experience.

Computer Conflict
Ap; **Strategic Simulations Inc.**; Roger Keating (**Rebel Force**) and Jim Yarbrough (**Red Attack**); 1981; O/P; N-R
Int/Land/Tac/1-2

Composed of two games, **Red Attack** is a two-player introductory modern scenario, while **Rebel Force** is a solitaire game of LIC (low-intensity conflict) with the player commanding the conventional forces.

Conflict
I; #68,72,**73**; **Virgin Mastertronic**; David Eastman; 1990; $14.95; ***
Beg/Dip/Str/1

Easy-to-learn game of the contemporary Middle East. Initially entertaining, but its appeal palls rapidly.

Conflict Europe
Am/ST/I; #65; **Mirrorsoft**; ?; 1989; O/P; N-R
Int/Land/Op-Str/1

Similar to *Nato Commander*, cf. infra.

Conflict in Vietnam
A/C/I; #**26**; **MicroProse**; Sid Meier and Ed Bever; 1986; O/P; ****+
Int/Land/Op/0-2

The final product of the Command series, this simulation of campaigns in Vietnam teaches valid lessons in an enjoyable format. Yet, when all is said and done, Vietnam was an unattractive war and there is little opportunity for the player to really "win." Without a doubt, the best computer simulation ever done on the period.

Conflict: Middle East
I; #86,**87,90**; **Strategic Simulations Inc.**; Norm Koger; 1991; $59.95; ***+
Adv/Land-Air/Tac-Op/1-2

A serious simulation of the 1973 Yom Kippur War and a future Arab-Israeli War, this product is very detailed. Mouse implementation is much easier than the author's last design (*Red Lightning*), but it still requires much time and thought. Recommended for the serious aficionado.

DEFCON 5
C/I; #38, CGF Winter 1987; **Cosmi**; Paul Norman; 1987; O/P; N-R
Beg/Air/Str/1

DRAGON Force
Am/I/ST; #60,70,**77**; **Interstel**; Roger Damon; 1990; $49.95; ***
Int/Land/Tac/1

Known for *Operation Whirlwind*, *Field of Fire*, *Panzer Grenadier* and *Wargame Construction Set*, Roger Damon updates his tactical system to the 16-bit machines. A logical descendant of his earlier designs, this simulation offers several man-to-man tactical situations in the contemporary environment.

F-14 Tomcat
C/I; #53,**58**,68; **Activision**; Dynamix; $49.95; 1989; N-R
Beg/Air/Tac/1

F-15 Strike Eagle
A/C/Ap/I; #4.6,74; **Microprose**; Sid Meier; 1984; $19.99; **
Int/Air/Tac/1

The first "classic" fighter simulation, this product was a classic in its time. However, it is extremely dated in today's market.

F-15 II
ST/I; #**65**,70,86; **MicroProse**; Sid Meier and Andy Hollis; 1989; $54.95; ***+
Int/Air/Tac/1

An update of *F-15* to state-of-the-art graphics. A Desert Storm Scenario Disk ($29.95) has also been released.

F-15 III
I; **MicroProse**; Andy Hollis; 1992; ?; N-R
Int/Air/Tac/1

Forthcoming version of *F-15*, which will ostensibly push the envelope of state-of-the-art graphics and game value.

F-16 Combat Pilot
ST/I; #61,66,**69,83**; **Electronic Arts**; Digital Integration; 1990; $49.95; N-R
Int/Air/Tac-Str /1-2; M

A British import which is most noteworthy with regard to excellent play balance and the capacity for modem-to-modem dogfights.

F-19
C/Am/ST/I; #53,**55,56**,64; **MicroProse**; Sid Meier and Andy Hollis; 1988; $69.95; ***
Adv/Air/Tac/1

Simulation of the Stealth Fighter, it is richly textured and complex (cf. *F-117* for a newer version).

F-29 Retaliator
Am/ST/I; #69,72,85,87; **Ocean**; Martin Kenwright; 1990; $39.95; ***
Int/Air/Tac/1-2; M

An ultra-modern fighter simulation, this product was distinguished by its relatively moderate release cost. However, it is rather generic in nature.



Falcon 3.0

F-117A
I; #**89**; **MicroProse**; Jeff Briggs; 1991; $69.95; ****
Adv/Air/Tac/1

The third generation of Stealth simulations, this is an even more detailed and graphically rich experience, but is definitely recommended for those who are experts in the genre.

F/A-18 Interceptor
C/Am; #**50**,56; **Electronic Arts**; Robert Dinnerman; 1989; $49.95; N-R
Beg/Air/Tac/1

A very user-friendly, mission-oriented combat flight simulator with a wide variety of targets and objectives.

Falcon
Am/ST/M/I; #43,**44**,63,64; **Spectrum HoloByte**; Gilman Louie; 1987; $19.95; **
Adv/Air/Tac/1

Falcon AT
I; #52,53,64; 1988; $59.95; ***
Falcon 3.0
I; #76,83,92; 1991; $79.95; ****+

Falcon is not so much a game system as it is a way of life. Possibly the most complex air simulator ever released for the commercial sector, its newest version (3.0) suggests utilization of DOS 5.0, a 486-33 MHz computer and a math co-processor! The manual is consistent with the game, and uses a layered level of teaching flight operations. Recommended for the serious power user! Two scenario disks have been released for the *AT* versions — *Operation Counterstrike* and *Operation Firefight* (Amiga and ST only) at $24.95 and $49.95 respectively.

Falklands '82
C; #**34**,37; **Firebird**; John Bethell; 1985; O/P; *
Bas/Air-Land-Nav/Op/1

Simulation of the Falklands Conflict, it made up in price value what it lacked in historical accuracy. Yet it has aged poorly, and offers little for the contemporary wargamer in either history or play value.

Fifth Eskrada
Ap; #**4.4,5.2**; **SimCan**; W.J. Nichols; 1984; $60.00; N-R
Int/Air-Sea/Op/1-2

Firepower
C/GS/I; #**42**,88; **Activision**; Reichart von Wolfshield; 1987; ?; N-R
Beg/Land/Tac/1-2; M

A modern combat simulation with helicopter support, but basically an arcade product that achieved most of its popularity due to its modem-to-modem capability.

Flight of the Intruder
Am/ST/I; #68,69,74,75,**76**; **Spectrum HoloByte**; Rod Hyde; 1990; $59.95; ***+
Adv/Air/Tac/1

A complex simulation of Vietnam air operations.

Geopolitique 1990
A/Ap; #**4.1**; **Strategic Simulations Inc.**; Bruce Ketchledge; 1983; O/P; *+
Int/Dip/St/1

Power politics in the 1980s; graphics and reality have definitely rendered it obsolete.

Germany 1985
Ap; #**3.3**,5.1; **Strategic Simulations Inc.**; Roger Keating; 1983; O/P; N-R
Adv/Land/Tac-Op/1-2

Global Commander
C; #48,**51**; **DataSoft**; J. Wilson; 1988; ?; **
Bas/Dip/Str/1

A global confrontation simulation, it bears little resemblance to reality and has limited entertainment value.

Global Conquest
I; #**93**; **MicroPlay**; Dan Bunten; 1992; $69.95; N-R
Int/Land-Nav-Air/Op-Str/0-4; M,Network

A sequel to *Command HQ*, this looks very promising.

Golan Front
C/Ap; #5.4,**5.5**; **SimCan**; W.J. Nichols; 1985; $60.00; N-R
Int/Land/Tac/1-2

Gulf Strike
At/Ap; #4.5,**5.1**; **Avalon Hill**; Mark Herman and Winchell Chung; 1984; ?; **
Int/Air-Land-Nav/Op/1-2

Based on the more successful boardgame of the same name, its play mechanics are clumsy and its graphics are even worse. The color scheme has to be one of the worst ever seen in the computer field.

Gunboat
I; #68,71,**72**; **Accolade**; Tom Loughry; 1990; $49.95; ***
Int/Nav/Tac/1

A simulation of Vietnam riverine operations, it is more of an arcade game. However, it does cover a combat aspect never attempted before. The graphics are similar to *Steel Thunder* by the same designer.

Gunship
C/I; #34,**35**,38,CGF Winter 1987; **MicroProse**; Arnold Hendrick; 1986; $54.95; ***
Int/Air/Tac/1

When initially released, this was *the* helicopter simulation. Good graphics (when released) coupled with excellent gameplay made this a classic.

Gunship 2000
I; #**89,91**; **MicroProse**; Jim Day; 1991; $69.95; ****
Int/Air/Tac/1

An update of *Gunship*, it covers several rotary-wing aircraft in various theaters. Probably the best helicopter simulation currently available on the market, but be sure to get the updated version (better collective implementation).

Halls of Montezuma
Am/M/Ap/C/I; #42,**45**,75; **SSG**; Roger Keating; 1987; $39.95; ***
Int/Land/Tac-Op/0-2

A simulation of U.S. Marine operations from the Mexican War to Vietnam, based on the *Battle Front* system, cf. infra.

Harpoon
M/I; #**62**,65,66,**68**,**69**,**70**,75,82,85; **360**; Gordon Walton; 1988; $59.95, Battle Sets $29.95, Challenger Pak $89.95 1-2, Editor; *****
Adv/Naval-Air/Tac-Op/1

The best simulation of contemporary naval warfare, it is kept current through release of new "battlesets" (to date, GIUK, North Atlantic, the Med and the Gulf). Detailed and intricate, yet easy to learn, it can teach valuable lessons while remaining an entertaining gaming experience.

Harrier Combat Simulator
I; #48; **Mindscape**; Mirrorsoft; 1988; ?; **
Beg/Air/Tac/1

A newer version of *High Roller*, but still marred by a restricted area of operations and clumsy mechanics.

Heavy Metal
C; #53,54,**57**; **Access**; Brent Erickson; 1989; $39.95; **
Beg/Land/Tac/1

A tank simulation, more akin to an arcade product than a serious simulator.

High Roller
I; #33; **Mirrorsoft**; ?; 1986; O/P; **
Int/Air/Tac/1

A simulator of the Harrier jump-jet, it is marred by an overly restictive environment and mediocre graphics.

Hunt for Red October
C/Am/ST/I; #30,32,46,**48**; **DataSoft**; Oxford Digital Enterprises; 1984; O/P; *+
Int/Nav/Tac/1

Based on the Tom Clancy novel, this simulation sold well in a movie tie-in, but probably did more to turn off purchasers to the wargame genre than any other product. Slow and clumsy mechanics yielded an ultimate failure as a gaming experience.

Infiltrator
C; #29; **Mindscape**; Chris Gray; 1986; O/P; *
Beg/Air/Tac/1

"James Bond-like" aircraft in an arcade mode.

Infiltrator II
C; #41,**44**; **Mindscape; Chris Gray; 1987; O/P; ***
Beg/Air/Tac/1

A sequel to *Infiltator* offering more of the same.

Jet Combat Simulator
C; #25; **Epyx**; Firebird; 1986; O/P; N-R
Beg/Air/Tac/1

An F-15 simulator, with little entertainment value.

Jetfighter I
I; #**58**; **Broderbund**; Bob Dinnerman; 1988; $49.95; ***
Adv/Air/Tac/1

Detailed graphics and play value. Although the basic scenario (occurring in the United States) was tenuous at best, *Jetfighter* was the first simulator to require tone acquisition a la *Top Gun* and is still an entertaining product.



Global Conquest

Jetfighter II
I; #86,87,**88**; **Velocity**; Bob Dinnerman; $69.95; 1991; ***+
Adv/Air/Tac/1

A sequel to *Jetfighter*, it has contemporary graphics and play value.

Jumpjet
C/Ap; #39; **Eurosoft International**; Anirog Software; 1986; O/P; N-R
Beg/Air/Tac/1

LHX
I; #68,72; **Electronic Arts**; Brent Iverson; 1990; $59.95; **+
Int/Air/Tac/1

Ostensibly a simulation of helicopter combat, it enjoyed more popular success than this reviewer thought it deserved, particularly considering its highly unrealistic flight model.

Lost Patrol
Am/ST/I; #72,81; **Ocean**; Ian Harling; 1989; $49.95; 0
Int/Land/Tac/1

This is an arcade game in which the player attempts to bring his/her patrol home from a grueling mission in Vietnam. The underlying thesis is interesting, but keyboard input is awkward and too slow, while joystick input is so poorly done that the entire game is totally unplayable.

M-1 Tank Platoon
Am/ST/I; #62,65,66,**66**,**71**; **MicroProse**; Arnold Hendrick; 1989; $69.95; ****
Adv/Land/Tac-Op/1

Arguably the best armor simulation available on the market. Richly textured and complex, it succeeds more than most of its competition. However, the computer has still not shown itself to be a valid platform for detailed land graphics in a fast-moving environment.



Gunship 2000

McArthur's War
C/Ap; #53,57,**61**,63; **SSG**; Roger Keating and Ian Trout; 1989; $40.00; ***
Int/Land/Tac-Op/0-2

A simulation of Korean War battles, using the *Battle Front* system.

Main Battle Tank: Central Germany
Ap/ST/I; #65,**68**; **SimCan**; Steven Newberg and Stephen St. John; 1989; $60.00; N-R
Int/Land/Tac/1-2

Main Battle Tank: Middle East
I; **SimCan**; Steven Newberg and Stephen St. John; 1992; $60.00; N-R
Int/Land/Tac/1-2

Main Battle Tank: Northern Germany
I; #80; **SimCan**; Steven Newberg and Stephen St. John; 1991; $60.00; N-R
Int/Land/Tac/1-2

The "Main Battle Tank" system features the kind of limited intelligence and fast-playing challenge usually associated with SimCan's naval games. Although the series does feature a visual replay of the games (with limited graphics), the series' action is relayed to the gamer as though by radio messages.

Mech Brigade
A/C/Ap; #5.4,**29**,33,37,**43**,**48**; **Strategic Simulations Inc.**; Gary Grigsby; 1985; O/P; ***
Int/Land/Op/0-2

A successor to *Kampfgruppe*, it is a *CGW* Hall of Famer, presumably because it corrected some deficiencies in its predecessor's handling of stacking. Clumsy, but still worthy of play.

MegaFortress
I; #74,76,**81**,89,**90**; **Three-Sixty Pacific**; Rick Banks and Paul Butler; 1991; $49.95; ****+
Adv/Air/Tac-Op/1

Normally, this reviewer finds simulations of tactical bomber operations intrinsically dull. After all, one flies a bus-like lumbering aircraft to a point, drops a bomb and flies home. However, Three-Sixty has made a difference and this simulation is both realistic and entertaining. Excellent graphics and play mechanics make this a program definitely worth looking at. A scenario disk (*Operation Sledge Hammer*) has recently been released and other scenario disks are planned.

MiG Alley Ace
A/C; #4.2,**4.3**; **MicroProse**; Andy Hollis; 1984; O/P; **
Beg/Air/Tac/1-2

An early MicroProse release, it is obsolescent other than as a curiosity. The first flight simulator to use split-screen graphics for two players.

MiG-29 Fulcrum
I; #81; **Domark**; John Kavanagh; 1991; $49.95; **+
Adv/Air/Tac/1

A good example of pricing differentials, it was originally released as a European import at a price of $79.95. Billed as the most realistic flight model available of the MiG-29, its armaments are not realistic and, overall, it lacks the panache of other releases.

Modem Wars
I; **Electronic Arts**; Dan Bunten; 1988; O/P; N-R
Beg/Land/Tac/1-2; M

MRCA Mach 2 Combat Flight Simulator
A; #35; **Firebird**; Firebird Licensees, Inc.; 1986; O/P; N-R
Beg/Air/Tac/1

An early F-15 combat flight simulator.

Nam
A/C/Ap; #28; **Strategic Simulations Inc.**; Roger Damon; 1985; O/P; *+
Int/Land/Tac/1

A simulation of various Vietnam actions, its graphics were mediocre and its historical lessons were wrong, wrong, wrong. Mildly entertaining, but very misleading as to the effects of fire support and small unit tactics.

NATO Commander
A/C; #**4.1**; **MicroProse**; Sid Meier; 1983; O/P; ***
Int/Land-Air/Op-St/1

The predecessor to Microprose's Command series, this operational simulation of war in modern Europe (US-Soviet) has become obsolescent (both in mechanics and reality). In its day, however, it was easy to play and enjoyable.

Navy Seal
C/I; #61; **Cosmi**; Paul Norman; 1989; $29.95/$34.95; *
Beg/Land/Tac/1

An atrocious collage of arcade sequences in search of a game, this horizontal scrolling action game teaches very little of value and is only of interest to gamers who enjoy non-realistic approaches to any form of combat.

North Atlantic 86
Ap/M; #**3.6**; **Strategic Simulations Inc.**; Gary Grigsby; 1983; O/P; N-R
Int/Nav-Air-Land/Op/1-2

An early game of US-Soviet conflict at sea.

Northern Fleet
C/Ap/M/ST/I; #**62**; **SimCan**; Steven Newburg; 1989; $60.00; ***+
Int/Nav/Op/1-2

Norway '85
C/Ap; #29; **Strategic Simulations Inc.**; Roger Keating; 1985; O/P; N-R
Int/Land/Op/1-2

Nuclear War
Am/I; #63,65,68,**69**,**75**; **New World**; Eric L. Hyman; 1990; $49.95; ***+
Bas/Dip/Str/1

As a "tongue-in-cheek" game of global destruction, it is not intended to be a simulation but rather a mild diversion. As such, it can be fun, although its emphasis on massive casualties will never garner a "political correctness" award.

Ocean Ranger
C; #52,**55**; **Activision**; Kevin Patrick; 1988; $34.95; N-R
Beg/Nav/Tac/1

Arcade-like simulation.

*Operation Com*Bat*
Am/M/I; #75,76; **Merit**; Scott Lamb; 1990; $49.95; N-R
Int/Land/Tac/1-2; M

Overrun
C/A/I; #60,**61**,63; **Strategic Simulations Inc.**; Gary Grigsby; 1989; $59.95; ***
Adv/Land/Tac/1-2

A newer version of contemporary conflict than *Mech Brigade*, it is on a smaller scale, and requires much time and effort. Lack of a strategic map often leaves the player in confusion and unable to coordinate his force into a cohesive attack or defense plan.



Harpoon (Mediterranean Battle Set)

Patriot
I; **Three-Sixty Pacific**; Rick Banks; 1992; ?; N-R
Int/Land-Nav-Air/Op/1

A simulation of the Gulf War.

PHM Pegasus
C/Ap; #36,**39**; **Lucasfilm**; Noah Falstein; 1986; O/P; **+
Int/Nav/Tac-Op/1

A hydrofoil simulation, this game has good graphics and play value, although the scenarios are intrinsically less interesting than one would have guessed. *Strike Fleet* uses a similar system and is a more interesting product.

Platoon
C/ST/I; #52; **DataEast**; Ocean; 1986; O/P; N-R
Beg/Land/Tac/1

See the movie; play the game. Vietnam small-unit tactics in an arcade mode shows another example of tie-ins rarely being successful.

Project Stealth Fighter
C; #**42**; **MicroProse**; Jim Synoski; 1987; O/P; ***
Adv/Air/Tac/1

Microprose's first release of a stealth fighter simulation, this was characterized by good graphics and gameplay at the time. However, it has been superseded by later releases, e.g. *F-19* and *F-117*.

Raid Over Moscow
C; **Access**; Bruce Carver; 1984; O/P; *+
Beg/Air/Tac/Str/1

RAPCON
I; **Wesson International**; Robert Wesson; ?; ?; ***+
Adv/Air/Tac/1

The military version of *TRACON*, this is a detailed simulation and quite interesting. However, its basic subject matter appeals to a narrow market; but for those with such interests, Wesson International does an excellent job.

RDF 85
Ap; **Strategic Simulations Inc.**; Roger Keating; 1983P; N-R
Int/Land/Op/1

Red Lightning
ST/I; #62,**63**,64; **Strategic Simulations Inc.**; Norman C. Koger, Jr.; 1989; $59.95; **
Adv/Land/Op/1-2

World War III in Central Europe. The game has some interesting concepts (e.g. forward deployment of subordinate units albeit at a cost of added fatigue), but the user-friendliness/clumsiness of inputs is so awkward as to make the product a tedious chore rather than an interesting or enlightening experience.

Red Phoenix
I; #78; **Mirrorsoft**; ?; 1992(?); ?; N-R
Int/Land/Op-St/1

A forthcoming simulation of author Larry Bond's novel about the Second Korean War.

Red Storm Rising
C/Am/ST/I; #**49**,**52**,**53**,55,64; **MicroProse**; Sid Meier; 1988; $54.95; ****+
Int/Nav/Tac-Op/1

A totally enjoyable simulation of contemporary attack submarine operations in the "Next War." Although some purists decry certain design decisions (made for playability), this reviewer considers the game to be one of the best on the market.

Reforger 88
A/Ap; #5.2,5.3,5.4; **Strategic Simulations Inc.**; Gary Grigsby; 1984; O/P; **
Adv/Land/Op/1-2

A simulation of modern warfare on the Central Europen Front, the game has clearly been rendered obsolescent both by game design standards and by historical events.

Return to the Falklands
Ap/I; **GQ**; Owen P. Hall, Jr.; ?; $35.00; N-R
Bas/Nav/Tac-Op/1-2; M

The British-Argentine War, with minimal graphics.

Seventh Fleet
Ap/I; #**27**,37; **SimCan**; Bill Nichols; 1985; $60.00; ***+
Int/Nav-Air/Op/1-2

A naval simulation without graphics using a paper map and counters, it is an interesting simulation of US-Soviet operations in the Pacific.

688
I; #**59**,63,64; **Electronic Arts**; John Ratcliff; 1989; $49.95; **
Int/Nav/Tac/1-2

A popular contemporary submarine simulation, although this reviewer has never been able to determine the reason for its popularity. Game play resembles World War II submarine operations more than the modern theater and the simulation's emphasis on periscope target acquisition is unrealistic.

Skyfox I-II
C; #4.5,44,**45**; **Electronic Arts**; Jeff Tunnell; 1984/1987; O/P; *+
Beg/Air/Tac/1

An arcade flight game which allowed Dynamix to stretch their technological wings as a developer.

Southern Command
Ap; #**2.2**; **Strategic Simulations Inc.**; Roger Keating; 1981; O/P; N-R
Int/Land/Op/1

The Yom Kippur War, covering only the Sinai Front.

Stealth
At; #41,**48**; **Broderbund**; Tracy Lagrone and Richard E. Sansom; 1984; O/P; N-R
Beg/Land-Air/Tac/1

An abstract simulation with few doctrinal lessons to commend it.

Stealth Mission
C; #47,**54**; **SubLogic**; Steve Setzler; 1988; $39.95; **
Int/Air/Tac-Str/1

An early simulation of the "Stealth" fighter-bomber, it failed to keep pace with the **MicroProse** releases, cf. *F-19*, *F-117*.

Steel Thunder
C; #53,**54**; **Accolade**; Tom Loughry; $29.95; 1988; **
Int/Land/Tac/1

A tank "simulator," it was more akin to an arcade game. It is still entertaining, although lessons learned have little relation to reality.

Stormovik
I; #76,**77**; **Electronic Arts**; Paul Grace; 1990; $49.95; **+
Int/Air/Tac/1

A flight simulator from the Soviet perspective, it lacks elan. The scenarios are forced and reflect internal dissension (which was somewhat prescient), but more US-Soviet confrontation would have been better received.

Strategic Conquest
Ap; #33; **PBI**; John L. Jamison; 1984; O/P; N-R
Beg/Land-Air-Nav/Str/1-2

Strike Aces
C/Am/I; #68,74,**77**; **Accolade**; Andy Craven; 1990; $39.95/$49.95; **+
Int/Air/Tac/1

Strike Fleet
C/Ap/I; #44,**46**,**50**,**57**; **Lucasfilm**; Noah Falstein; 1987; O/P; ***+
Int/Nav-Air/Tacp-Op/1

Modern naval fleet actions with an emphasis on "you-are-there" perspectives. Good graphics and game play do much to overcome certain historical inaccuracies (sacrificed for playability), but switching from bridge to bridge to effect changes can be an awkward experience.

Suez 73
Am/I; #76; **RAW**; Al and Joseph Benincasa; 1991; $49.95; N-R
Adv/Land/Op/1-2

The Battle of Chinese Farm in the 1973 Arab-Israeli War. This program was initially slated for release in 1987, but delayed until 1991 when the designers signed with a new distribution company. Now it is on indefinite hold.

Super Huey I-II
A/C; #5.5,**44**,46; **Cosmi**; Paul Norman; ?; $12.95; *+
Beg/Air/Tac/1

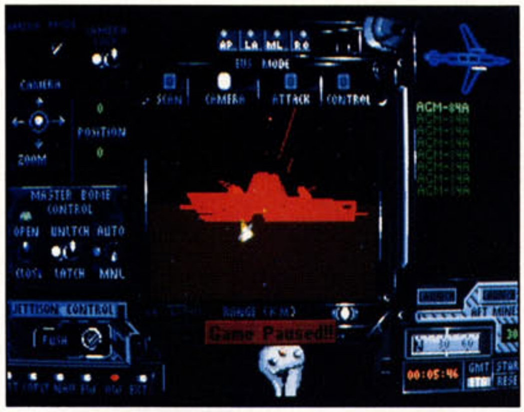
More of a flight simulator than a combat model, it is characterized by clunky graphics and gameplay.

Tank
I; 61,62,65,**68**; **Spectrum HoloByte**; R. Anton Widjaja; 1989; $54.95; ***
Adv/Land/Tac-Op/1

A modern tank simulation, it is similar to *M-1 Tank Platoon* and, in fact, covers certain aspects in a better fashion, especially larger unit operations. However, terrain slope remains a significant problem.

Tank Platoon
Ap; #3.5; **Dataworks**; ?; 1983; O/P; *
Beg/Land/Tac/2

An early tactical wargame in which each player has ten units. It is interesting to see just how primitive and virtually unplayable it looks today.



Megafortress (Operation Sledgehammer)

Team Yankee
I; #74; **Empire**; ?; $59.95; 1990; **
Int/Land/Tac/1

An arcade-like product trying to pass as a simulation of modern tactical armored warfare.

Team Yankee 2: The Pacific Islands
I; #92; **Empire**; ?; $59.95; 1992; N-R
Int/Land/Tac/1

If at first you don't succeed....

Theater Europe
A/C/Ap; #29,34,**39**; **DataSoft**; Ian Steels; 1986; O/P; **+
Int/Land/Str/1

A US-Soviet confrontation in Central Europe; rendered obsolescent by historical events and poor gameplay.

Thud Ridge
I; #55; **Three-Sixty Pacific**; Acme Animations, Inc.; 1988; O/P; **
Int/Air/Tac/1

One of the earlier Vietnam combat air simulations, it appears obsolescent in the current marketplace.

Thunder Chopper
C/Ap/I; #42,**44**,60; **SubLogic**; John B. Rosenow; 1989; O/P; **
Int/Air/Tac/1

Helicopter simulation; of little interest or gameplay.

Thunderhawk
Am/I; **Virgin**; Mark Avory; $39.99; 1992; N-R
Int/Air/Tac/1



Sid Meier's Civilization

A new helicopter simulation, more akin to an arcade game.

Tomahawk
A/C; #42,**44**; **DataSoft**; D.K. Marshall; 1987; O/P; **
Int/Air/Tac/1

A helicopter simulation; mediocre graphics and gameplay.

Top Gun: Danger Zone
I; **Konami**; ?; 1991; $49.95; N-R
Beg/Air/Tac/1-2

Twilight 2000
I; #92; **Paragon**; Frank Chadwick and Mark Seremet; 1991; $59.95; ***
Adv/Land/Tac/1

Based on the paper RPG of the same name, it postulates a US-Soviet confrontation in Central Europe, and the player takes the survivors in a post-war conflict. Detailed and technical, but more for the RPG crowd.

U.M.S.
ST/I; #**43**,**48**,51; **Firebird**; Ezra Sidran; 1987; $49.95; **
Int/Land/Op/0-2

A wargame design kit, characterized by easy design parameters. However, accuracy is sacrificed for playability, and often playability is sacrificed for graphic display. Maritime operations are ignored, so its universality is not "complete." A Vietnam scenario disk has been released. It will visually impress your friends, although it is clumsy and awkward.

U.M.S. II
I; #74,75,**87**; **MicroPlay**; Ezra Sidran; 1991; $59.95; **+
Int/Air-Land-Nav/Op-Str/0-multi

A newer version of *U.M.S.*, with more emphasis on strategic operations. A visual feast and a playability famine. The "design-your-own" disk is marketed separately and company support for the title is tenuous at best. The designer has released a Desert Storm disk.

Under the Ice
ST/I; #54,**59**; **Lyric**; John Almberg; 1989; $39.95; *+
Adv/Nav/Tac/1-2

A contemporary submarine simulation, defeated by clumsy and ill-defined mechanics.

VC
Ap; #2.5; **Avalon Hill**; Britt Monk; 1982; O/P; N-R
Beg/Land/Tac/1

A tactical simulation of Vietnam — almost as enjoyable as the real thing (i.e. not very). Obsolete and hopefully forgotten.

Wargame Construction Set
C/A/I/ST/Am*; #34,37,75; **Strategic Simulations Inc.**; Roger Damon; 1986; $29.95/$34.95/$39.95*/**
Int/Land/Tac-Op/1-2

Basically the user-modifiable source code of Roger Damon's previous works (*Operation Whirlwind*, *Field of Fire*, *Panzer Grenadier*), the game's potential for design-your-own scenarios is limited by the failings of the system's mechanics. It is most applicable to the World War II era; a novice may well find its flexibility interesting, although the graphics are dated.

Wingman
A/C; **MicroProse**; Andy Hollis; 1982; O/P; *+
Bas/Air/Tac/1

A very early flight-combat game. Of interest only to the collector. **CGW**

He Said,

Two Perspectives

By Leah & Charles

The sun is setting and the calm in the pilot's lounge is broken by the squawk from the speaker in the flight room. Radar has spotted three MiG-23 Flogger G aircraft 120 km away and heading directly toward the air base. Your plane is ready on alert status as you jump in and fire up the engines as the bunker door opens. While taxiing onto the runway, radar picks up three blips at 80 km. Slamming the throttle forward, the afterburners build to maximum thrust and you scan the horizon. The HUD shows the bogies are closing at Mach 1.

"Great," you think as you release the brakes and hurtle down the runway, "it's gonna be one of those days." Climbing to 5000 feet, a tight turn is required to engage the target that the radar has been tracking. A buzzer sounds — the lead bogy, 50 klicks out, has sent an AA-9 missile screaming toward you at Mach 3. "Yeah, it's gonna be one of those days."



TITLE:	Birds of Prey
PRICE:	$49.95
PROTECTION:	Document Check
SYSTEM:	Amiga
PUBLISHER:	Argonaut Software
DISTRIBUTOR:	Electronic Arts San Mateo, CA

Pick a Plane, Any Plane

Birds of Prey is the latest combat flight simulator from **Electronic Arts**. It allows the player to choose from 40 modern aircraft, dating forward from the 1950s. The player may choose either NATO and Western powers or opt for Soviet forces, as East meets West in a multi-faceted air war fought over a hypothetical landscape.

The graphics are reasonable looking, allowing for a multitude of outside views in addition to the standard cockpit view. The user can adjust the graphic detail to suit slower processors; however, these reviewers experienced no significant response delay in the simulation, running on a stock Amiga 2000 using the most detailed graphics mode.

Unlike reality, the cockpit instrumentation graphics are the same for all planes, as are the controls, radar and HUD. While this abstracts a major portion of the simulation, it makes flying different planes easier, since one doesn't have to adjust to different cockpit configurations. In other words, there is no asking "Hey, where's my altimeter?" when switching from plane to plane.

Multiple Wargasms

The user selects from twelve different missions encompassing Air Combat (Chuck's favorite), Ground Support, Bombing (Leah's favorite), Reconnaissance, Troop/Supply drop, Stealth and Experimental. Not every plane can accomplish all of these different missions, so aircraft selection plays a key role in any strategy one might be trying. Naturally, even the versatile F-16 cannot execute a troop drop!

The strategic map is used for locating targets and planning flight paths and works nicely in the overall game. The user can access this feature any time during the simulation and it can be zoomed from the full theater view to excruciating detail, pinpointing all targets and their nearby geographical features. Mercifully, the game is paused while viewing the strategic map, giving players a chance to study the vast amounts of data which it can offer.

Hero or Hamburger?

Like any good wargame, *Birds of Prey* has a campaign scenario. The campaign game is a series of mission scenarios fought at the player's discretion. The object of the campaign is to reduce the enemy air and ground forces to zero. To achieve the goal, the player must choose a strategy and strike a balance between mission types while minimizing his own losses. The best joint campaign the authors engaged in was fought using a trusty F-4 Phantom for all combat missions.

The player/pilot outfits his plane before each mission with whatever weapons he deems necessary to accomplish the scenario's objective. The smorgasbord consists of air-to-air missiles, air-to-ground missiles, various and sundry bombs and, of course, an extra tank of fuel for those long recon missions. Again, not all aircraft can carry each weapon type and planes are further restricted by the number of weapon pods they posses. A pilot can return to base for more fuel and ammo if necessary, which is common on ground support missions. Adding another intriguing element, missions may be staged from either ground bases or carriers.

Combat Ready

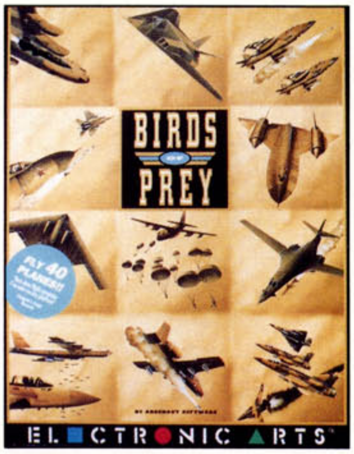
The HUD has a navigation mode complete with programmable waypoints. A bombing mode dynamically computes fall line, point of impact and drop point. This makes hitting the target a manageable task with freefall bombs and a virtual certainty with the laser-guided variety. Radar mode has Track While Scan, Range While Scan, Ground Attack and Gun Manager functions. These assist the pilot considerably in hitting any pesky moving targets. The HUD also identifies the target so the pilot doesn't inadvertently fire on a friendly unit.

Missiles are fired by: acquiring the target on radar; flying within the weapon's range; locking on and letting them rip. The plane's computer assists the pilot by automatically selecting the nearest target. Unfortunately, one does not always wish to track the

She Said

on Birds of Prey

Wesolowski





nearest target and, in this case, manual tracking is necessary. In this mode, potential targets are highlighted on the HUD while the player maneuvers a reticule over the potential target and hits "Z" to lock it in for tracking.

This entire process is quite awkward when flying at Mach 1, especially when one considers that the pilot loses control over the aircraft during the selection process! In addition, the tracking does not revert to automatic should the manually selected target be lost. Instead, the plane enters the manual selection process. This can be very confusing when no potential targets exist and the plane doesn't respond to the flight controls. The authors have crashed many a plane because of this phenomenon. A "next target" key similar to *Gunship* or *F-15 Strike Eagle II* is clearly called for.

Triple A

While these reviewers are in gripe mode, they might point out that the manual could use some better organization. The game did *not* contain a keyboard overlay. Instead, there was a command summary card. This made learning the game mechanics somewhat tedious. Thank goodness for the Pause function. In addition, the disk utility function is lacking. Try as they might, these reviewers could not get the game installed on hard disk. Fortunately, pilot files may be stored there, even when playing from disk. *[Ed: CGW did manage to install it on the Amiga hard drive at our office, albeit manually and with some effort.]* The Load and Save functions always default to DF0: and do not remember an alternate path specified during the previous disk operation. Therefore, the user is compelled to wait while the directory is gathered from the floppy each time the utility is entered. Though this is a minor point, it is inconvenient for hard disk users.

She Said, He Said

While the reviewers of this game have agreed not to file for divorce over this, a major difference of opinion has developed between them....

She Said: In terms of numbers of aircraft to fly, *Birds of Prey* has a lot to offer. However, the lack of imagination in cockpit design, the difficulty encountered when installing to a hard drive, the disorganized manual, the silly "rookie" flight training mode (the *better* half of this review team actually flew *her* plane nose over tail while in this mode without crashing!) and the manual targeting weigh heavily in this woman's decision to rate this dogfight a dog.

He Said: The mechanics of playing *Birds of Prey* take some getting used to, but after a few games even groundhogs can be flying like aces. Be careful when using manual targeting mode! Each mission is a "manly" challenge and the campaign game is quite entertaining (albeit time-consuming). The wide variety of aircraft available is a real treat and these authors have yet to master the Harrier "Jump Jet" and the X-15 (it's lonely out in space) but will continue to give them the old "college try." Overall, *Birds of Prey* is a fast-moving combat flight simulation that will give hours of enjoyment to the player who is more concerned about action than accuracy. **CGW**

Toward a Definition...



State of the Industry: In the March, 1992 issue of *Computer Gaming World*, we took an editorial stance against the use of the term *virtual reality* to describe any computer game in which the action takes place on a flat screen as opposed to "totally immersing" the gamer in a 3-D environment (usually with the addition of peripheral hardware). It was and is our belief that the use of the term *virtual reality* to describe even 3-D environments that exist solely on an ordinary computer monitor screen is both disingenuous marketing hype and confusing because of the groundbreaking work in *virtual reality* that has been done by companies like **VPL** and **Autodesk**.

Nevertheless, there is a need for a new buzz word to describe the new style of computer games that is just beginning to emerge on the marketplace. A couple of years ago, **Origin** revitalized the company's vision with a new mission statement/slogan ("We create worlds"). The implication, of course, was that while others may have been satisfied with making "ordinary" computer games, they intended to establish credible worlds. The emphasis on object-oriented programming that began to take shape with *Ultima VI* and is reaching a new zenith in *Ultima VII* established objects that had their "own" reality and environments that had their "own" limitations.

Ken Williams recently attempted to expand the horizons of **Sierra**'s design teams in terms of "world creation." His thesis used a buzz word that we would not: "**Sierra** is going to become a *virtual reality* company." Nevertheless, we agree with his concept. His concept is that **Sierra** will lead out in creating *worlds* that are distinctive from the characters within their games. Worlds, characters, vehicles, containers, objects will all be so delineated that they could conceivably be transferred from one **Sierra** world to another.

Cynics will immediately point out that such a vision is a logical extrapolation from the work being done for **The Sierra Network**. If his vision reaches fruition, it will be no problem adding scenarios and characters to on-line adventure games. Thus, it would be simple for a **TSN** customer to invite an adventure game guru to help him/her solve a vexing puzzle in an on-line game by having the guru's on-line character join the original gamer's on-line character. Worlds would become even more fascinating to explore when one could encounter another **TSN** gamer's characters, as well as computer-controlled NPCs in the gaming environment.

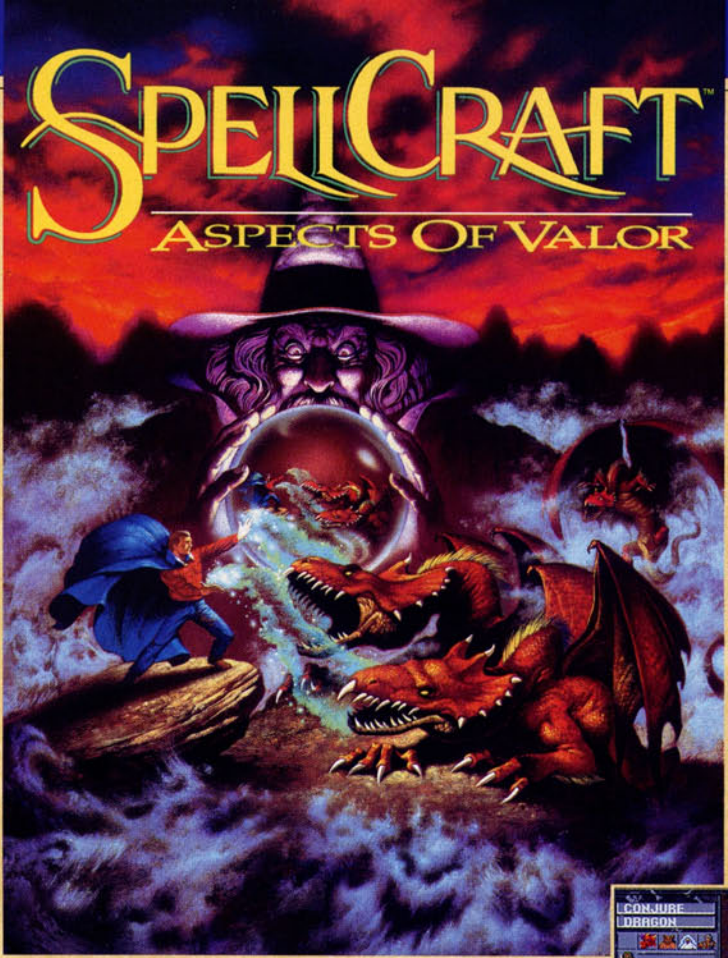
At *CGW*, we find Ken Williams' suggestion to be an exciting vision. It resonates with a previous editorial stance in which we called for data storage standards that would enable games to share "Save Game" files in a "universal file format." In this way, characters from one game could visit other games and vehicles from other games could be used to explore still other games (e.g. a race car from **Accolade**'s *Road & Track presents Grand Prix Unlimited* challenging the AI in **Electronic Arts**' *Mario Andretti's Racing Challenge* or cruising the streets of San Francisco in **Spectrum HoloByte**'s **Vette!**).

We also find hope in the necessity of standardization required to fulfill such a vision. Internally, **Sierra** will have to agree on standard definitions and file structures in order to be able to move objects, characters and vehicles from one game environment to another. We already see evidence of such activity in the way **Sierra**'s programmers are adapting the tools to use the same kind of scaling in each program and to draw from an entire pastiche of art techniques, within the same set of tools. It even encourages us to think that companies might actually, someday, reach the point that they could standardize installation programs and every program on a hard disk might be able to share the same directory of device drivers (saving on costs of goods for the publishers and on disk space for the consumers). Indeed, an industry-wide "universal file format" might not be far behind.

Another bright spot of the **Sierra** vision is that it recognizes the emergence of **The Sierra Network** as a telecommunity. It is a special "cyberplace" that only exists as it is accessed by gamers and that comes to life as its teleresidents appear. It means that major publishers are starting to discover the human factor in connectability. Whether that community be built around **America Online**'s *Neverwinter Nights*, **GEnie**'s *Air Warrior* or *Multi-Player Battletech*, **Prodigy**'s *The Next President* or *Baseball Manager* or **CompuServe**'s *Sniper!*, telecommunity is happening and it is, to turn a phrase, changing the way America plays.

We just wish the industry would call this style of world-building something other than *virtual reality*. Whether they are called "cyberworlds," "telereality," "conceptual reality" or "ontologity," we think such world-building deserves its own buzz word, not one borrowed from a different style of computing.

State of the Magazine: This issue of *Computer Gaming World* features the first installment of a new feature, *The CGW Stock Watch*. With so many entertainment software publishers successfully going public, many readers are curious as to what this means to them as gamers as well as potential investors. *The CGW Stock Watch* will attempt to disseminate some useful tutorial information for those who have never invested before, but might want to because their favorite publisher is offering stock, as well as provide some analysis concerning the relative health and future of each company. Some months, the feature will provide several charts to illustrate its points, and other months, it will focus on one particular story. We believe that most of our readers will find coverage of this facet of the industry will shed additional light on the process of getting computer games from concept to customer. **cgw**



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